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DOUBLEDAY, PAGE & CO.'S
GEOGRAPHICAL MANUAL AND NEW ATLAS

PUBLISHERS' FOREWORD

Dr. C. O. S. MAWSON, the author of this work, is not only a scholar of established reputation, but has actually visited most of the countries herein described. His statements therefore have the additional weight of first-hand knowledge, while his exceptional training has enabled him to select and present his facts with authority, lucidity, and with due regard for their relative values.

DOUBLEDAY, PAGE & COMPANY

DOUBLEDAY, PAGE & CO'S
GEOGRAPHICAL MANUAL
AND NEW ATLAS

BY
C. O. SYLVESTER MAWSON, LITT. D., PH. D.



*Maps of To-day and To-morrow
New Maps will replace Old after the Great War*

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PREFACE

WHENEVER a new publication is presented to the public the assumption is that the need for such a book is more or less real. In the case of DOUBLEDAY, PAGE & Co.'s GEOGRAPHICAL MANUAL AND NEW ATLAS this need is not only a real but an urgent one. If any existing publication filled the present want, this book would not have been prepared. Atlases there are—and excellent ones, too. Geographical manuals there are—some of them good so far as they go. But this book is different. It is not only an Atlas and a complete geographical reference work besides, but its aim is to link up geographical information with present-day requirements; to serve as a companion to the modern history, and more especially to that great history drama which is being unfolded before our eyes and recorded in our daily newspapers. In short, its aim is to be the "guide, philosopher, and friend" of every observant reader and student of affairs.

The world is moving so rapidly in our generation that facts learned at school are more or less antiquated in early manhood. The old familiar landmarks are being ruthlessly swept away in the rush of international greed or enterprise. Even geographical names are not constant, and track must be kept of every change. As new regions are opened up to civilization, a knowledge of railway routes becomes as important to-day as a knowledge of waterways did yesterday. Again, products and industries are of supreme importance in this commercial age. A great industrial nation like the United States requires not only an assured supply of raw materials, but foreign markets for its manufactured goods. To the perpetual questions "Where?" "What?" "Why?" and "How?" this book seeks to provide an answer.

Europe claims our attention not only on account of the Great War, but because it is America's best customer. The United States is essentially a vital part of the Europe of to-day, bound by ties of blood to every European nation great or small. Yet not sentiment alone but sheer self-interest should compel some knowledge of these European countries. Hence, Europe has received a large share of the space available.

To the newspaper reader who tries to follow the titanic struggle of a world at war, and who becomes lost in the maze of journalistic speculation, this work attempts to clarify the situation by shedding some light on foreign governments and on international relations. Essential facts are given in a truthful and unbiased manner. The world is viewed as a whole, with due respect to values.

The Maps Complete and Different

A word about the maps. Two things are required of an Atlas: (1) It must be accurate; and (2) it must be up-to-date. The excellent series of maps, compiled by C. S. Hammond & Co., will be found to meet this test in a most adequate manner. A new feature—and, it is felt, a helpful one—has been introduced in the descriptive matter entitled "What the Maps Tell Us." Here the author assumes the rôle of guide. The maps give up their secrets and their message. They become, as it were, endowed with an individuality, and the character of each is laid bare.

The motorist will be specially interested in the main automobile routes marked on each of the State maps. This is an innovation in an Atlas, and one that should find extensive favour.

Maps of the War Zones

The special maps of the war zones are placed at the beginning, for at the present time these are of first importance.

The movements of armies can be followed closely and intelligently by the aid of these clear maps; while by means of the "Index of the Western Front" any place can be instantly located. The pronunciation of many of the geographical names is a stumbling-block which will be overcome by reference to the "Pronunciation of War Names." There will be few American families that will have no personal interest in the detailed maps of war-torn Europe, and these particular pages will, alas, be scanned by many a moistened eye.

A New Country Mapped

As a result of the world war a new country has been created. Carved out of Arabia is the Kingdom of Hejaz. It lies along the western shore of the Red Sea. Though this new country was formed only a few months ago, a map showing its extent and importance in the Moslem world is included in this book.

Discoveries by the Discoverers

The traveller is at once the pioneer and the sustainer of geography; he both blazes the way and gives a seasoned survey of later developments. We shall meet some of the greatest of these travellers at close range, and they shall tell us in their own words what they have seen and what they have done. What man can read of the finding of Livingstone in Africa, of Peary's doggedness in the Arctic wastes, of Scott's heroic death in the hour of victory, or of Sir Douglas Mawson's tragic journey in the regions of the eternal blizzard, without his blood coursing more quickly through his veins? Men like these form the vanguard of modern geography. They observe and record; the world assimilates and profits. We introduce them here to give life and vigour to a subject too often treated as lifeless.

The Automobile Tours of the World

The needs of the serious reader and of the man of business have been kept foremost in mind; but the requirements of the tourist—especially of one who is planning a vacation abroad or an automobile tour in this broad land of ours—have not gone unheeded. Not only will the outline of some popular European tours be welcomed, but the prospective traveller will doubly enjoy the various extracts from books of travel which give an added interest to this publication.

In another place we mention the authorities to which we have been indebted in the preparation of this work. In order to secure accuracy, reference has been made to all the best available sources, many of them official. As this is a book for the general public and not for the specialist, the language has been made as readable as the subject will permit; but while the book is intended to meet a popular demand, the treatment is in no way superficial. That which is vital to a correct understanding of a country has in every instance been retained and emphasized. Non-essentials have given place to essentials; dead matter has made way for living.

Ignorance of foreign lands—and of our own, too—is not merely inexcusable but is little short of a calamity. If this book can cast a ray of light on some strange or obscure part, if it can be of personal service in a time of pressing need, its purpose will not have been unfulfilled.

C. O. SYLVESTER MAWSON.

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ways have been constructed across the Appalachians the effect of the ridges is still apparent, for transport is only easy where the valleys of the Mohawk and Hudson rivers form a natural road; hence, at the seaward end of this road has developed New York, by far the greatest port of the continent.¹

To illustrate the effect of configuration on the industries of a people let us take a glance at Norway. We see that the country is a vast, rocky table-land cut into by innumerable fiords, and that a large part is absolutely barren. A line of small rocky islands protects the inshore from the storms of the North Sea, and within which the water is nearly always calm. On account of the barrenness of the soil, we look to the mountains and the coast for some indication of the leading products and industries. Nor are we disappointed, for lumber and fish are the chief resources of Norway. The abundance of lumber has given rise to various wood industries, from shipbuilding to matches, while the fisheries are very extensive.

CLIMATE

IMPORTANCE OF CLIMATE.—Let us first distinguish between *weather* and *climate*. By weather we mean the amount of heat, moisture, and wind in a particular place at a particular time. Climate shows the average atmospheric conditions, especially in regard to their effect upon animal and vegetable life. Weather deals with special instances; climate shows the general condition, and is the sum and average of weather.

In regard to the productions and communications of a country, its climate is of more importance than its coastline or its relative elevation. Methods of cultivation in temperate climates differ widely from those in hot or cold regions. The commercial industry in harbours that are frozen for several months in the year differs greatly from that of harbours that are always accessible. The social life also in mild winter climates is different from the social life in northern cities.

CAUSES AFFECTING CLIMATE.—The principal causes which affect climate are: (1) latitude; (2) altitude; (3) nearness to the sea; (4) direction of prevailing winds; (5) direction of mountain ranges; (6) slope of the country; and (7) nature of the soil.

(1) **LATITUDE.**—The temperature of a place varies with its distance from the equator. Within the tropics the sun's rays are, at one place or another, vertical at noon; therefore a greater number of rays fall upon a square foot of ground than in those parts of the world where the rays are sloping.

(2) **ALTITUDE.**—The temperature decreases the higher we rise, the thermometer falling one degree for every 333 feet of rise above the sea-level. Those who live on mountains or elevated plains within the tropics enjoy temperate climates. Quito, in South America, although practically on the equator, has a mild and spring-like climate due to its elevation of 9,348 feet. In India, during the hot season, people may escape the intense heat of the plains by going to some hill-station, such as Simla or Darjeeling in the Himalayas.

(3) **NEARNESS TO THE SEA.**—The sea becomes heated more slowly than the land, but it takes in more heat and retains it longer. Hence the effect of the sea is to temper the climate, rendering it milder in winter and cooler in summer. Greater extremes of temperature and less rainfall will be experienced in the heart of a continent than near the sea. For example, the climate of England is much milder than that of parts of

Russia in the same latitude, while the rainfall of Russia is much less. In North America, owing to its size and the consequent distance of its interior from the sea, the climate ranges between great heat and great cold.

(4) **DIRECTION OF PREVAILING WINDS.**—Winds coming from warm regions raise the temperature of the atmosphere. Thus the sirocco, which blows from the Libyan Desert, makes the air in Italy extremely hot for the time being. The prevailing southwest winds bring warmth and moisture from the Gulf Stream to Great Britain, whereas the east wind blowing over the cold plains of Russia reaches the British Isles as a cold, dry wind. The southwest monsoons, which blow from May to September, modify the Indian climate to a considerable degree.

(5) **DIRECTION OF MOUNTAIN RANGES.**—Mountains act as a barrier against the winds. For instance, the Himalayas protect India from the cold winds of northern Asia. If the Carpathians were removed from the northeast of the Hungarian Plain, that plain would be swept by cold northeast winds in the winter and would not be so fertile. Mountain ranges also condense the moisture in the air; and, when the prevailing winds are from the ocean, cause an abundant rainfall. Thus the Rocky Mountains arrest the clouds coming from the Pacific, and compel them to part with their moisture. The damp side of a mountain range is generally well wooded, while on its dry side there is only sufficient moisture for grass.

(6) **SLOPE OF THE COUNTRY.**—A country that slopes away from the rays of the sun will not be so fertile as one that slopes toward them. In the northern hemisphere, the most fertile lands slope to the south; in the southern hemisphere, to the north. Planters of fruit trees are well aware of this fact. In the United States grapes and other fruits are grown in a southern aspect, while in New Zealand they are grown in a northern aspect.

(7) **NATURE OF THE SOIL.**—If a soil be hard and sandy, it will retain much heat in the day and give it out rapidly at night. Thus, it is the porous character of the sand that causes both the intensely cold nights and hot days in desert regions. If a soil be clayey, and particularly if it be well covered with vegetation, it will hold a great deal of water and will part with the heat more slowly. For this reason seeds may be sown in clayey soils later in the year than in sandy soils. Nor is a forest region subject to sudden floods. The cutting down of the forests on the western slopes of the Alps has resulted in very sudden and dangerous floodings of the Rhone.

MARITIME AND CONTINENTAL CLIMATES.—The climate of a country is described as maritime or continental according to the proximity to the sea. A *maritime* or *oceanic* climate is distinguished by mildness and moisture. A *continental* climate is marked by dryness, with extreme cold in winter and intense heat in summer. Such a climate may be affected, as in Ontario, by the proximity of lakes.

ATMOSPHERIC PRESSURE.—Like all other forms of matter, air has weight and is subject to the law of gravitation. It is obvious, therefore, that the air must exert a certain amount of pressure on every body which it touches. The pressure of the air at sea-level is 15 pounds to each square inch. Air is also very elastic; hence the layers of air at the surface of the earth are denser and more compressed than those above them. It follows that the density and pressure diminish rapidly as we ascend.

THE BAROMETER.—The barometer is the instrument with which we measure atmospheric weight and pressure. The mercury in the tube is balanced by the weight of the air out-

¹J. F. Unstead and E. G. Taylor, "General and Regional Geography" (1916).

side. If the air is heavy, then the mercury rises; if light, it falls. Cold, dry air is the heaviest; warm, dry air comes next; and warm, moist air is the lightest of all.

The barometer is also used to measure altitude. At sea-level the barometer usually stands at 30 inches. For every 1,000 feet we ascend, the barometer falls one inch; thus if we go up 10,000 feet the barometer will stand at only 20 inches.

By carefully watching the readings of the barometer, it is found that the pressure varies according to the time of day. This is especially the case in the tropics, where these diurnal variations are so regular that a barometer might be made to serve as a clock. It is also found that the height of the mercury varies with the seasons. In warm climates the pressure gradually diminishes from winter to summer, although the range is very small. In summer, therefore, the pressure is less than in winter in the two hemispheres owing to the greater evaporation.

ISOBARS.—Isobars (Greek *isos*, equal; *baros*, weight) are lines drawn on the map connecting all places of equal pressure. The daily weather charts, upon which such lines are shown, are issued by the Weather Bureau at Washington and by the meteorological office in London and elsewhere, based on information received by telegraph from various stations. It is from such information that daily forecasts of the weather can be issued with considerable accuracy.

ISOTHERMS.—Isotherms (Greek *isos*, equal; *thermé*, heat), or isothermal lines, are lines drawn upon a map or chart connecting places of the same temperature. These lines will be found to vary from month to month over the two hemispheres, or over local areas, during summer and winter. If it were not for the various causes which affect climate, the isothermal lines would coincide with the parallels of latitude.

The *mean daily temperature* is the average of 24 hourly observations of the thermometer; and the average of the 365 mean daily temperatures, taken in a year, gives the *mean annual temperature* for that year. But although places may have the same mean annual temperature, they may have very different climates. London and Vienna have nearly the same mean annual temperature, yet London has a mean winter temperature of 37° and a mean summer temperature of 64°; while Vienna has a mean winter temperature of 29°, and a mean summer temperature of 70°. Thus the climate of Vienna is more extreme and continental than that of London, which enjoys a milder or maritime climate, although both cities receive in the year almost exactly the same amount of heat from the sun.

WINDS.—Winds are motions of the atmosphere caused by differences in its temperature and density. When the air is heated, it expands and becomes lighter. Its equilibrium is destroyed, and as the heated air rises the colder surrounding air rushes in to take its place.

The earth is at all seasons completely surrounded by two belts of high atmospheric pressure, one lying in about latitude 35° N., the other in about latitude 30° S. On the equatorial sides of these belts pressure diminishes to a minimum near the equator, and on the polar sides a similar diminution occurs, extending to very high latitudes, if not to the poles. The circulation arising from this distribution of pressure may be summarized as follows:

Equatorial Belt	Calms and variable winds	"Doldrums"
N. Intermediate Belt	N. E. and E. Winds	} "Trades"
S. Intermediate Belt	S. E. and E. Winds	
N. and S. High Pressure Belts	Calms and variables	"Horse Latitudes"
Higher North Latitudes	Variable W. and S.W. winds	"Westerly variables"
Higher South Latitudes	Strong W. and N.W. winds	"Brave west winds"

The position of all these belts changes with the season; but the range of movement is comparatively small, and the extreme positions are reached from one to two months after the solstices.¹

KINDS OF WINDS.—Winds are described as *constant*, *periodic*, or *variable*. They also receive names in accordance with their direction, strength, and temperature. Strong winds are called gales, storms, hurricanes, cyclones, tornadoes, etc., according to their velocity. Strong winds have both a rotary and an onward motion, hence all *storms* are cyclonic in character. In the northern hemisphere, the wind in such storms rotates in the contrary direction to that of the hands of a clock, but travels forward in a clockwise direction. In the southern hemisphere these motions are reversed, the air in the storm rotating with the hands of a clock, but advancing in the opposite direction. In the northern hemisphere if we stand with our back to the wind the centre of the storm is on the left hand; in the southern hemisphere the opposite is the case. Cyclonic storms are the most violent in the West Indies, the Indian Ocean, and the China Sea. They occur most frequently at the same season of the year—from July to October in the northern hemisphere, and from January to May in the southern hemisphere. These storms are usually accompanied by a heavy fall of rain.

TRADE WINDS.—The most important of the constant winds are the northeast and southeast trade winds, or "trades," so called from their use in oversea trade. The air in the tropics, being intensely heated, rises and flows toward the north and south as an upper current; while the cold air flows in toward the equator to take its place. If the earth were at rest, and its surface either wholly land or wholly water, there would be only two sets of winds—a north and a south toward the equator on the surface, and return winds in the upper regions toward the poles. But the earth rotates from west to east, places at the equator moving at the rate of 1,000 miles an hour; while as we go north or south the circumference of the earth becomes less and less, and the velocity of rotation diminishes. Thus air moving toward the equator travels more slowly than those parts of the earth over which it is passing, and appears to come from the northeast or southeast instead of from due north or due south.

For a space of about 30° on either side of the equator the trade winds blow almost due northeast and southeast, but as they approach the equator their course becomes nearly east because of the great friction of the air against the earth's surface.

In the Atlantic the N. E. trade extends from lat. 9° N. to 30° N.; in the Pacific from 9° N. to 26° N. The S. E. trade varies from 4° N. to 22° S. in the Atlantic, and from 4° N. to 23° S. in the Pacific; but the limits change with the season, shifting a little with the advance and retreat of the sun.

The current of hot air rising from the tropics forms in the upper regions of the atmosphere two counter currents flowing toward the poles. As these winds blow in an opposite direction to that of the trade winds, they are called the *anti-trades*. After leaving the tropics these two great contrary currents of air become chilled and heavier and begin to descend, reaching the earth's surface in the temperate zones at about 30° N. and 30° S. latitude.

It is interesting to notice the effects of these regular winds on trade-routes, *e. g.*, the clipper route from London to Melbourne or from Liverpool to Bombay. The route is the same

¹H. R. Mill, "The International Geography" (1916).

for both places as far as the Tropic of Capricorn, and the two main objects of the skipper are to get the full use of the N. E. trade-winds blowing with him north of the equator, and to avoid the full strength of the S. E. trade-winds blowing against him south of the equator. With this double object in view, he hugs the European coast so as to make the Canary Islands, just as south of "the line" he hugs the American coast as far as the Tropic of Capricorn. There the two routes separate. The Melbourne-bound boat keeps on southward till she is from 300 to 400 miles south of the latitude of Melbourne before she turns due east, for Melbourne itself is north of the Forties, and thus she will get the full advantage of the Brave West Winds. The route of the Bombay boat varies with the season. If it is the season of the S. W. monsoons, *i. e.*, April to October, she hugs the African coast, and makes a straight course up the Mozambique Channel; but if it is the season of the N. E. trades, *i. e.*, October to April, she drops southward from the Cape into the Forties, and then keeps on from 2,000 to 3,000 miles eastward before she turns northward. And even then, after passing the Tropic of Capricorn, she holds eastward again, so that she approaches Bombay from the southeast.¹

THE DOLDRUMS.—As the two trades meet at or near the equator, it follows that if both are blowing with the same force they must neutralize each other and produce a calm. This zone of calms is known to sailors as the *doldrums*, and varies in breadth from 150 miles to 500 miles. This central calm belt is generally found between 3° and 9° N. lat. The reason why it is found north of the equator is this: The oceans in the southern hemisphere being much broader than those in the northern, the southeast trades constitute a larger body of wind than the northeast trades and push back the latter. The zone of calms is continually changing its position, following the sun northward in summer and southward in winter. It is subject to heavy and constant rains and violent thunder-storms. When either of the trades is stronger than the other, light breezes blow usually from the east; hence the zone is also called the zone of variable winds.

MONSOONS.—The chief periodic winds are the monsoons (Arabic *mausim*, a season), which are characteristic of the Indian Ocean. During our summer, the air over the vast plateau in southern Asia becomes greatly heated and rarefied. The ordinary northeast trades are in consequence deflected from their course and completely turned round, thus becoming a southwest monsoon. The southwest monsoon (*wet monsoon*) blows from the end of April to the middle of October; the northeast monsoon (*dry monsoon*) blows from the middle of October to April, that is when the sun is south of the equator. The "breaking of the monsoon," when one monsoon changes into the other, is usually accompanied by torrential rains and violent storms.

HORSE LATITUDES.—The belts of high atmospheric pressure in 30° to 35° on either side of the equator are commonly known as the *horse latitudes*. That part of the northern belt which is over the Atlantic Ocean is the one commonly referred to. The horse latitudes are notorious for their baffling winds and tedious calms. They present a marked contrast to the equatorial belt in the dryness and the freshness of the air and the light rainfall.

WESTERLY WINDS.—The anti-trades north of 30° N. lat. and south of 30° S. lat. are known as the *Prevailing Westerlies* or *Westerly Winds*. In the northern hemisphere, the prevalent wind is the warm southwest; in the southern hemisphere, the warm northwest. The Westerlies exist throughout the greater part of the temperate zones, and are the ones with which Europeans are most familiar. These winds south of

the equator are known to all readers of sea stories as the *Brave West Winds*; on account of their being most prevalent in 40° to 49° S. lat., they are described as blowing in the *Roaring Forties*.

HOT AND COLD WINDS.—Many variable winds have special local names. Thus the hot, parching wind which blows from the African deserts, passing over southern Italy, is called the *sirocco*; the same wind in Turkey is called the *samiel*. A similar wind in Spain is called the *solano*; in Switzerland it is known as the *foehn*. In Egypt the hot southwesterly wind from the Sahara is called *khamsin* (an Arabic word meaning "fifty"), so called because it blows for about fifty days from April to June. In Syria and Arabia, a similar hot, violent, dust-laden wind is called *simoom* (from an Arabic word meaning "to poison"). In the south of France a cold, dry wind from the Alps is called the *mistral*. There are many other names for local winds.

DISTRIBUTION OF LIFE

EVOLUTION.—The mystery of life is one of the great unsolved puzzles of the universe, and remains a standing challenge to the biologist, the chemist, and every educated man. Science, however, is able to explain in great measure life's unfoldment.

All vegetable and animal organisms of the present day have been slowly evolved from those of former ages. Before modern science had sufficiently lifted the veil that shrouded the past it was commonly thought that the history of the earth was a succession of "terrible events and revolutions,"¹ and that a complete and instantaneous destruction of a *flora*² and *fauna*³ took place, followed by a sudden appearance of new life forms as if at the bidding of a magician.

Such beliefs were rudely shaken by Darwin and Wallace, who advanced the theory that the various types of animals and plants have developed by descent from former types. This theory of *evolution*, which involves also the descent of man from some lower ape-like animal, was supported from the first by Huxley in England and Haeckel in Germany, and is now generally accepted by scientists. Men now see that instead of undermining religion, the idea of evolution uplifts creation, and makes it not an unnatural happening in the dim past but a divine activity that is continuous throughout all time.

ADAPTATION TO ENVIRONMENT.—Every organism that survives does so by adapting itself to its situation. The relation of every living thing to its environment concerns both the biologist and the geographer. Ordinarily speaking, environment applies only to immediate surroundings, but in a strict sense it includes everything that may in any manner affect the organism—light and heat, alternations of day and night, and of summer and winter, and the like—to all of these, as well as to more immediate influences, the organism is sensitive. Whatever tends to destroy the harmony between any life form and its environment tends also to disturb or destroy life. This is a fundamental law of nature. Indeed, Spencer has defined life itself as "the continuous adjustment of internal relations to external relations."⁴

External conditions are not constant. Besides the daily and seasonal changes to which an organism must adapt itself, more violent changes may take place in the history of a

¹Cuvier, "Discours sur les Révolutions du Globe."

²FLORA, the plants collectively of a particular region or epoch.

³FAUNA, collectively, the animals peculiar to a region or epoch.

⁴"Principles of Biology" (1881).

¹L. W. Lyde, "Man on the Earth."

species. For instance, a plain may be upheaved and become a plateau, or a mountain range may be submerged till it becomes a line of small islands, in which case corresponding changes of structure must be undergone to meet the altered conditions. Some animals will migrate while the change is taking place. Those that remain and are not sufficiently plastic to adjust themselves to the new environment must surrender and die. Fossil remains make it clear to us that numbers of different types have met this fate. This process of adaptation is called by Darwin "Natural Selection," and by Spencer the "Survival of the Fittest."

EFFECT UPON ENVIRONMENT.—Not only does environment affect an organism, but organisms are fitted to make certain exchanges with their environment, drawing from it certain forms of energy and returning to it matter and energy in some other form. Worms, as Darwin showed, effect a continual transformation of the soil by bringing the deeper layers to the surface where they are exposed to the atmosphere, and by dragging superficial objects into the burrows; thus marked chemical changes take place, for the action of the animal on environment is that of an oxidizing agent. The whole life of an organism is an unconscious struggle to wrest the means of subsistence from the environment. Excepting man, it is doubtful whether any animal is conscious of the actual process of adaptation; but though the process be unconscious it is there nevertheless.

FACTORS IN DISTRIBUTION.—Why is it that certain forms of life prevail in one region and not in another? Why, for instance, are the marsupial animals (except the American opossums) now confined to Australasia? Why are there no amphibians on oceanic islands? Why are some regions treeless and others grassless? Such questions as these will suggest themselves to any thinking person, and the answer must be sought among the factors which determine distribution. Plants require light, heat, and moisture; and where these elements are abundant, as in the tropics, there we find the greatest development of vegetable life. Animals are dependent on climate, food, and shelter, and like plants they are more or less restricted in their habitats. In the tropics, again, we find that animal life is most exuberant in point of size, numbers, strength, and beauty. The inhabitants of the rich and sheltered lowlands are distinct from those of the mountain slopes, and these again from those of the higher and colder elevations. In the same manner the marine animals of the shallow waters differ from those of the deeper ocean.

Other factors are the location of the original headquarters of the stock (usually uncertain), and the means of dispersal. Wide distribution usually suggests unusual facilities for dispersal. Thus insects are found almost everywhere; for most can fly, or are drifted with the wind, or are borne from place to place in the form of eggs or cocoon. On a volcanic island out in the ocean mammals are rarely found, which is explained by the fact that most mammals have limited powers of swimming. The occasional presence of small rodents on such an island would usually indicate that a wreck or a drifting raft had brought them there. Changes of the earth's crust and climate also help to explain distribution. For example, Asia was undoubtedly connected at one time with America by land across Bering Strait. This fact will account for the fossil remains of the horse, bison, and mammoth in Alaska, and enables us to understand the many common features between North American and European faunas.

Bearing in mind these factors, it will be seen that the old

method of dividing animal and plant life into geographical realms is somewhat misleading; hence we will adopt a more fundamental and scientific grouping by dividing the animal and vegetable world into the following areas: the *littoral* (inhabiting the seashore), *pelagic* (inhabiting the open ocean), *abyssal* (inhabiting the depths of the ocean), *fluvial* (inhabiting rivers and other fresh water), and the *terrestrial* (inhabiting the land).

LITTORAL AREA.—The littoral area extends from high-tide mark to a depth of about 100 fathoms. It is the meeting-place of air, water, and land, and is probably the richest in life forms. It includes the majority of the seaweeds, and representatives of almost every family from the Infusorians to birds and an occasional mammal. The lower boundary of this area is known as the *mud line*, which Sir John Murray regards as "the great feeding ground in the ocean," and as the primary haunt from which animals migrated to the deep sea. The most valuable fishing grounds are in the relatively shallow waters on the continental shelf, or littoral plateau, of the temperate lands.

PELAGIC AREA.—The organisms that live in the open sea are divisible into the *plankton* (floating), the *nekton* (actively swimming), and the *benthos* (attached to or crawling along the bottom). The plankton is now commonly taken to include the nekton as well. Scientific investigation of these pelagic organisms dates from the British *Challenger* expedition (1872–1876). Ocean life that exists in the first 100 fathoms is called *epiplankton*, and its wealth and variety are almost inconceivable.

In the first hundred fathoms at sea the fall of temperature is gradual and slight, and forms practically no hindrance to the diurnal oscillation of the oceanic epiplankton—the alleged rise and fall of almost the entire fauna. Roughly speaking, the greatest number of animals is nearest the surface at midnight; but different species sink and rise at different times, and to or from different depths. Apart from this diurnal oscillation, unfavourable conditions at the surface send or keep the fauna down in a remarkable way: for example, in the Bay of Biscay few organisms are to be found in the first fathom in bright sunlight, but on a still, hot day the next few fathoms teem with life; yet after a few minutes' wind or rain these upper layers will be found almost deserted.¹

ABYSSAL AREA.—This is the home of the *benthos*, the flora and fauna that live on the bottom of the ocean.

The researches of the *Challenger* and analogous expeditions have made it certain that there is no depth-limit to the distribution of animal life, that there are in the great abysses representatives of most of the classes from Protozoa to fishes, and that the distribution of some types tends to be cosmopolitan in correspondence with the uniformity of the physical conditions.

As to these physical conditions, the deep-sea world is in darkness, apart from occasional "phosphorescence," for a sensitive photographic plate is not influenced below 250–500 fathoms; the temperature is about freezing point, the heat of the sun being practically lost at about 150 fathoms; the pressure is enormous, about 2½ tons per square inch at 200 fathoms; the cold water in sinking brings down a relatively large proportion of oxygen; it is quite calm, for the effects of the greatest storms are only felt near the surface.

There are no plants, apart from the resting stages of a few doubtful algaoid forms, for typical vegetable life is dependent upon light, and not even bacteria, otherwise so omnipresent, are known to occur in the great depths. The animals feed on one another and on the organic debris which sinks down from above.

¹"Encyclopædia Britannica", 11th ed., vol. 21, p. 724.

Modern research has yielded no result more stimulating to the imagination than the tidings of this strange, silent, cold, dark, plantless world and its numerous inhabitants.¹

One of the chief barriers to the horizontal distribution of pelagic organisms is the junction of opposing currents. For example, the warm southwest Mozambique Current meets a northeast branch of the cold Antarctic Drift off Natal and forms a practically impassable barrier. Discontinuous distribution is also apparent where physical barriers have intersected a certain area. Dr. G. H. Fowler cites the following example:

The Isthmus of Panama was apparently only upraised about Miocene time, having been previously an archipelago through which a great circum-equatorial current could pass; consequently the benthos of the Panama region shows marked alliance with the Caribbean, with which it was formerly continuous, but practically none with the Indo-Pacific. . . . The damming of a great circum-equatorial current by the Isthmus of Panama is probably also responsible for that dislocation of currents which resulted in the present relations of the Gulf Stream and North Atlantic Drift to the Labrador Current, and cut the Atlantic Boreal fauna into two discontinuous districts.

FLUVIAL AREA.—The fresh-water faunas and floras may be distinguished as: (1) the recent migrants, *e. g.*, the simple polyp *Cordylophora* which has been carried by boats up rivers and canals; (2) the survivors of the inhabitants of an ancient sea, *e. g.*, many of the molluscs of Lake Tanganyika in central Africa; (3) the cosmopolitan forms which include some protozoa, numerous small crustaceans, hydra, fresh-water sponges, and some varieties of worms. Many of these smaller forms are readily transported on birds' feet and otherwise from one water basin to another.

TERRESTRIAL AREA.—Regarding the origin of land animals, it is presumed that organisms travelled inland from the shores of sea and river, or became able to survive the drying up of lagoons. This transition must have come about slowly and gradually. Professor H. Simroth, in his *Entstehung der Landthiere*, seeks to show that hard skins, cross-striped muscle, red blood, and so on, were acquired as the transition to terrestrial life was effected.

EVOLUTION OF FAUNAS.—The historical relations of the great faunas suggest various possibilities. According to Moseley:

The fauna of the coast has not only given origin to the terrestrial and fresh-water faunas, it has throughout all time, since life originated, given additions to the pelagic fauna in return for having received some of these pelagic forms back again, to assume a fresh littoral existence. The terrestrial fauna has returned some forms to the shores, such as certain shore-birds, seals, and the polar bear; and some of them, such as the whales and a small oceanic insect, *Halobates*, have returned thence to pelagic life.

The deep-sea fauna has probably been formed almost entirely from the littoral, not in the most remote antiquity, but only after food, derived from the débris of the littoral and the terrestrial faunas and floras, became abundant in deep water.

It was in the littoral region that all the primary branches of the zoölogical family tree were formed; all terrestrial and deep-sea forms have passed through a littoral phase, and amongst the representatives of the littoral fauna the recapitulative history in the form of series of larval conditions is most completely retained.

According to Agassiz, Simroth, and others, a littoral fauna was the original one, whence have been derived, on the one hand, the pelagic and abyssal faunas, and, on the other hand, the fresh-water and terrestrial faunas. Thus, when ancient philosophy maintained, with Thales, that everything had issued from the sea, it voiced an opinion which modern science regards as an accepted fact.

I. VEGETATION

The chief vegetation types are the forest, the grassland, and the desert, corresponding more or less to the wet, scantily watered, and arid regions of the earth.

FORESTS.—The forests in the equatorial belt and in regions where the summer rainfall exceeds sixty inches, consist of tall trees, together with a dense profusion of plants forming a continuous carpet. Stanley gives a graphic description of "The Great Central African Forest," with its tangled mass of vegetation, the crowding and strangling to fill up every gap, the riot of life, death, and disease.

Imagine the whole of France and the Iberian peninsula closely packed with trees varying from 20 to 180 feet high, whose crowns of foliage interlace and prevent any view of sky and sun, and each tree from a few inches to four feet in diameter. Then from tree to tree run cables from two inches to fifteen inches in diameter, up and down in loops and festoons and W's and badly-formed M's; fold them round the trees in great tight coils, until they have run up the entire height like endless anacondas; let them flower and leaf luxuriantly, and mix up above with the foliage of the trees to hide the sun, then from the highest branches let fall the ends of the cables reaching near to the ground by hundreds with frayed extremities, for these represent the air roots of the epiphytes¹; let slender cords hang down also in tassels with open threadwork at the ends. Work others through and through as confusedly as possible, and pendent from branch to branch—with absolute disregard of material, and at every horizontal branch plant cabbage-like lichens of the largest kind, and broad spear-leaved plants—these would represent the elephant-eared plant—and orchids and clusters of vegetable marvels, and a drapery of delicate ferns which abound. Now cover tree, branch, twig, and creeper with a thick moss like a green fur.

To complete the mental picture of this ruthless forest, the ground should be strewn thickly with half-formed humus of rotting twigs, leaves, branches; every few yards there should be a prostrate giant, a reeking compost of rotten fibres, and departed generations of insects, and colonies of ants, half veiled with masses of vines and shrouded by the leafage of a multitude of baby saplings, lengthy briars and calamus in many fathom lengths, and every mile or so there should be muddy streams, stagnant creeks, and shallow pools, green with duckweed, leaves of lotus and lilies, and a greasy green scum composed of millions of finite growths.²

Temperate broad-leaved forests exist where the yearly rainfall exceeds twenty-five inches, and consist of such deciduous trees (*i. e.*, those shedding their leaves annually) as the beech, oak, and maple. The undergrowth is rarely dense, and, unlike the tropical forests, there is a lack of bright flowers. Coniferous or cone-bearing forests are found in regions where the winters are severe and the rainfall scanty. The "needles" of such trees as pines, firs, and hemlocks replace the broad leaves of the deciduous forests, for this needle-like form checks transpiration and is better suited to drier conditions. These forests are also to be found in regions favourable to deciduous trees, as on the Pacific coast of North America, where the trees often attain a gigantic

¹Air plants.

²H. M. Stanley, "In Darkest Africa" (1890).

¹J. Arthur Thomson, "The Science of Life."

size. Conifers are also found on the mountains of Central Europe and on the sand barrens of the coastal plain of the United States.

GRASSLANDS AND SAVANNAS.—In the regions bordering the equatorial belt, as in the campos of Brazil and the subtropical plains of Africa, grasses and sedges predominate, the prolonged summer drought preventing the growth of forests. Varieties of palm, eucalyptus, acacia, and baobab are found, but only singly or in small groups. Temperate grasslands, known as *prairies* in North America, as *pampas* south of the Amazon, as *llanos* on the Orinoco, and as *steppes* in southern Russia, occur in regions with hot summers and a moderate rainfall. Trees are absent or scattered. One of the aims of civilization is the extension and intensive culture of grassy vegetations, which include our cereals.

In temperate latitudes, one sixth of the total number of flowering plants are annuals; in the tropics, about one twentieth; and in the polar regions, about one thirtieth.

TUNDRAS.—The tundras, or treeless plains of the northern polar regions, mark the limit of tree vegetation, and are covered with a dense mass of mosses and lichens. The subsoil is frozen to a depth of many feet, and only the surface thaws during the short summers. The tundra passes imperceptibly into the *moor*, *bog*, and *heath* of more southern latitudes.

The monotony of tundra scenery has been noted by many travellers, but the tundra in several regions is not devoid of charm. Seebohm describes it as a veritable paradise in summer, and draws the following picture:

In exposed situations, especially in the higher latitudes, the tundra does really merit its American name of Barren Ground, being little else than gravel beds interspersed with bare patches of peat or clay, and with scarcely a rush or a sedge to break the monotony. In Siberia, at least, this is very exceptional. By far the greater part of the tundra, both east and west of the Ural Mountains, is a gently undulating plain, full of lakes, rivers, swamps, and bogs. The lakes are diversified with patches of green water plants, amongst which ducks and swans float and dive; the little rivers flow between banks of rush and sedge; the swamps are masses of tall rushes and sedges of various species, where phalaropes¹ and ruffs breed, and the bogs are brilliant with the white fluffy seeds of the cotton-grass. The groundwork of all this variegated scenery is more beautiful and varied still—lichens and moss of almost every conceivable colour, from the cream-coloured reindeer-moss to the scarlet-capped trumpet-moss, interspersed with a brilliant alpine flora, gentians, anemones, saxifrages, and hundreds of plants, each a picture in itself. . . . In the sheltered valleys and deep water-courses a few stunted birches, and sometimes large patches of willow scrub, survive the long severe winter, and serve as cover for willow-grouse or ptarmigan.²

ICE DESERTS.—The ice deserts of polar and mountain regions are virtually devoid of vegetable life, except such low forms as the microscopic alga (*Sphærella nivalis*) that produces "red snow."

MOUNTAIN VEGETATION.—Mountains are characterized by a succession of different types according as the altitude increases. In equatorial regions a complete series of vegetations occurs, corresponding to the same variety of climates. These vertical belts of vegetation in the tropics are:—

First Zone (from sea-level to 1,900 feet). Belt of palms, breadfruit, and bamboos.

Second Zone (1,900 to 3,800 feet). Belt of tree-ferns.

Third Zone (3,800 to 5,700 feet). Belt of laurels, myrtles, and cacti.

Fourth Zone (5,700 to 7,500 feet). Belt of evergreens and the vine.

Fifth Zone (7,500 to 9,500 feet). Belt of cereals, with orchard and deciduous forest trees.

Sixth Zone (9,500 to 11,400 feet). Belt of firs and pines.

Seventh Zone (11,400 to 13,300 feet). Belt of larches, alders, and willows; above 13,300 feet, saxifrages and lichens only are found.

DESERTS.—Deserts are barren tracts chiefly found in regions with practically no rainfall. Vegetation is scanty, and where shifting sand dunes abound may be absent altogether. Various species of cactus are typical of desert plant life, their thick fleshy stems retaining stores of water. On the fringe of the desert, low bushes and dwarf trees occur, with occasional stretches of grassland. Such a region is called "scrub," as in the United States, or "bush" as in Australia and South Africa.

PELAGIC PLANTS.—The sea possesses a fecundity so remarkable that as Columbus said, "the tongue and the hand do not suffice to describe it." In the open sea, vegetation is scanty below 200 fathoms, for beyond this depth sufficient light cannot penetrate to stimulate growth. There are an immense number of minute floating plants consisting chiefly of diatoms and blue-green algæ (*Schizophyceæ*). These plants form the basal food supply of all pelagic animals.

The immense tract of comparatively still water in the North Atlantic Ocean, known as the *Sargasso Sea*, presents the largest of these banks of floating seaweed. Aristotle tells us that the boldest mariners were afraid to cross its boundary, and this historic tract well-nigh hindered the discovery of America. The vessels of Columbus were so impeded by the seaweed that the sailors became alarmed for their safety and mutinously demanded to be taken back to their native country.

II. ANIMALS

RELATION OF ANIMAL AND PLANT LIFE.—Since vegetation forms the basis of all animal life, the number of plant-feeders is determined by the abundance or scarcity of plants, while the number of flesh-feeders is determined by the number of plant-feeders. Insects, molluscs, worms, and other invertebrates which feed on plants, form a preponderating portion of the fauna of every region, and are in turn the chief food of many birds, reptiles, and small mammals. The grazing animals, though of prime importance to man, are relatively of numerical insignificance. So also are their carnivorous enemies.

MOVEMENTS OF ANIMALS.—The quest for food is the chief reason for movement in the animal world; hence in many animals movement is the dominant note. Nor is food the sole cause of this phenomenon. Self-protection also plays its part in influencing movement. Besides these movements that conduce to the welfare of the individual, there is another class of motions that relates to racial well-being, and that has for its object the colonizing of new regions. Many animals, such as barnacles, anemones, and corals, are fixed and only perform small vibrations within a restricted radius. Others, as the snails and bivalves, are sedentary and cover little ground in a lifetime. Yet all these fixed animals, and most of the sedentary ones, have an active juvenile stage. Were it not for this early activity, the habitat of parents and offspring would soon be stripped of its food supply.

SEASONAL CHANGES.—Periodic changes in animal life occur

¹Small shore birds resembling sandpipers.

²Scottish Geographical Magazine, IX. (1893).

in certain areas, though these changes are less marked than in the vegetable kingdom. The seasonal interruption of the food supply, as well as changes of temperature and moisture, cause corresponding changes in the active life of many invertebrates. Some pass the season in a state of suspended animation, others in the form of eggs or pupæ, while the animals that feed upon them are driven either to lie dormant or to migrate. For example, many birds migrate northward in the spring in quest of food and nesting sites, returning in the autumn to warmer climes where life is easier to sustain.

At other times it is violence that compels legions of animals to quit the place where they had established themselves. In the countries where man does not decimate them, they swarm in such abundance, and are so crowded together, that one can scarcely understand how they exist; their numbers are alarming. The pictures that Livingstone has drawn of the exuberance of game in wild districts of central Africa, and in particular on the banks of the Zambezi, suffice to give us an idea of the fecundity of nature. But this very fecundity is fatal to the weak tribes; the stronger ones, getting the upper hand, drive them away or annihilate them. They have no choice left, and thus forced migrations arise.

When animals perform their journeys annually we observe an amount of order and foresight which are not seen in erratic migrations. During these latter the whole colony sometimes expires, overcome by the elements or hunger; not a single individual ever sees again the country which the tribe quitted in innumerable columns. In the former, on the contrary, instructed by an experience from which all profit, the journey is performed with a degree of order that fills us with astonishment.¹

ANIMAL LIFE OF THE FORESTS.—The tropical forests teem with animal life. An exuberant variety of insects, birds of brilliant plumage, apes, monkeys, tree-frogs, tree-snakes, and other tree-dwellers abound. Owing to the density of the undergrowth the majority of the forest denizens can either climb or fly. The elephant, with its huge bulk, is alone enabled to crush its way through the tangled growth. In the less dense deciduous and coniferous forests, the number of ground-dwelling animals increases, and there are many animals of the type of the wild boar and the wolf. The coniferous forests are the home of the most valuable fur-bearing animals.

ANIMAL LIFE OF GRASSLANDS AND SCRUB LANDS.—These are the regions of fleet-footed grazing animals, such as the deer, antelope, and wild varieties of the horse, ass, camel, and ox. Here too are found the dependent beasts of prey—lions, tigers, jackals, and the like. Swift-running flightless birds, as the ostrich, emu, rhea, and cassowary, also are found. Rodents, too, are numerous.

ANIMAL LIFE OF THE DESERTS.—Desert life is essentially restricted. Insects, rodents, reptiles, and a few birds—all of them characterized by a protective colouring of yellowish-brown, make up the animal life of the desert.

The fact that almost all the desert animals agree in colouring with their surroundings explains why the traveller who is not an experienced observer often sees, at first at least, but little of the animal life. Moreover, the desert seems far poorer than it is, since it is not till dusk that most of its tenants leave their places of rest and concealment and begin to be lively.²

An occasional larger animal from the outer belt of scrub or grassland may be encountered passing from oasis to oasis.

The camel, with its broad padded hoof and its capacity for storing water, is admirably fitted by nature for traversing the desert wastes.

ANIMAL LIFE OF THE TUNDRAS.—The reindeer, elk, polar bear, Arctic fox, and numerous fur-bearing animals are peculiar to these cold regions. The protective colouring devices of the Arctic fauna are remarkable. The Arctic fox, for example, has a brownish colouring in summer that harmonizes with the moss and lichen, but in winter its coat becomes as white as the surrounding snow. In the brief summer, flocks of birds migrate from southern latitudes to feed on the swarms of insects bred in the thaw-formed bogs and pools of the tundras.

It is only by digging that one can know the tundra for what it is: an immeasurable and unchangeable ice-vault which has endured, and will continue to endure, for hundreds of thousands of years. That it has thus endured is proved indisputably by the remains of prehistoric animals embedded in it, and thus preserved for us. In 1807 Adams dug from the ice of the tundras the giant mammoth, with whose flesh the dogs of the Yakuts sated their hunger, although it must have died many thousands of years before, for the race became extinct in the incalculably distant past.

The year is well advanced before the tundra begins to be visibly peopled. Of the species which never leave it one sees very little in winter. The fish which ascend its rivers from the sea are concealed by the ice; the mammals and birds which winter in it are hidden by the snow, under which they live, or whose colour they wear. Not until the snow begins to melt on the southern slopes does the animal life begin to stir. Hesitatingly the summer visitors make their appearance. The wolf follows the wild reindeer, the army of summer birds follows the drifting ice blocks on the streams. Some of the birds remain still undecided in the regions to the south, behave as if they would breed there, then suddenly disappear from their resting-place by the way, fly hastily to the tundra, begin to build directly on their arrival, lay their eggs, and brood eagerly, as though they wished to make up for the time gained by their relatives in the South.¹

Multitudes of sea fowl have their home in the polar regions, for the lack of vegetation makes the ocean the only source of food.

SEA ANIMALS AND THEIR DISTRIBUTION.—The sea is tenanted by a profusion of living creatures. Conditions are favourable to fecundity. There is an abundance of room, of sunshine, and of food; hence, the struggle for existence is relatively mild. The pelagic or sea animals present a great variety of type, from the minute *Noctiluca*, which in their myriads create phosphorescent furrows in the wake of ships, to the giant whales.

If we divide the sea into three portions by lines drawn through latitude 40 north and south of the equator, we have a belt of warm ocean water in the Atlantic and Pacific oceans, while north and south of this lie the temperate and the arctic caps of water. Speaking generally, the fauna of the warm belt is distinctive and fairly uniform in all parts of the world, whilst that of the two caps is again uniform, but quite different from that of the equatorial zone. Many of the fish, crustacea, and the minute animals of the cold northern seas are met with again on the coast of Patagonia and of South Africa. The arctic right whale has its counterpart in the southern right whale of the antarctic. The movements of all these boreal and hyperboreal animals follow the tracks of cold water: for example, the arctic whales follow the cold Labrador current that sets down the Newfoundland coast. . . . Each fauna appears to die out, however, if transferred to sea-water of a different density of temperature.

¹F. A. Pouchet, "The Universe" (1906).

²A. E. Brehm, "From North Pole to Equator" (1896).

¹A. E. Brehm, "From North Pole to Equator" (1896).

The vast majority of marine animals have no power of altering their constitution to suit water of a new degree of salinity. Their movements are controlled so as to keep them in the stream or drift of that kind of water to which they are, as it were, attuned, and a very slight change in the water is fatal either to themselves or to their offspring.¹

BARRIERS TO DISTRIBUTION.—The chief barriers to the dispersal of land animals are: (1) impassable stretches of water, *e. g.*, the Palk Strait has formed an effectual barrier to the passage of the tiger from India to Ceylon; (2) deserts, *e. g.*, the Sahara has prevented the fusion of the mammals belonging to the north and south of that tract; (3) high mountain ranges, especially when they run in an east-and-west direction as in the Old World, *e. g.*, the mammals of Tibet are as distinct as those of any continental island.

MAN'S INFLUENCE ON ANIMAL DISTRIBUTION.—Man has exerted a marked influence on the distribution of animals, either by destroying them or by transporting them to localities removed from their natural home. The early emigrants to America brought their domestic animals with them, and now horses and cattle are completely naturalized in the New World. The settlers in Australia and other countries have introduced their domestic animals where they were previously unknown. The fallow deer was imported from its Mediterranean habitat into northern Europe; while the rabbit was carried to the Antipodes from Great Britain, and has flourished in such an unprecedented manner that its extermination would be hailed as a national boon. Similarly destructive have been the goats and pigs imported into a number of oceanic islands. The English sparrow, brought by man to America, is yet another instance of this prolific increase. Man also has been the involuntary agent for conveying the common rat and mouse to the New World and to every other country where they were unknown.

It is likewise quite impossible to say what part man may have played in the extermination of the large mammals that inhabited Europe about the close of the glacial period, but it seems quite probable that he may have had a considerable share in their destruction. Be this as it may, the domestication of certain mammals has undoubtedly had the effect of destroying the wild race, as is remarkably exemplified by the two existing species of camel, of neither of which do we know the original habitat. The original European wild ox—unless, indeed, the half-wild cattle of the British parks be its direct descendants—has likewise disappeared at some unknown epoch owing to the hand of man. Although other mammals, such as the quagga (*Equus quagga*), Burchell's rhinoceros (*Rhinoceros simus*), and the blaubok (*Hippotragus leucophaeus*) have been almost or completely exterminated by human agency in South Africa, while the American bison has been practically swept away from its native prairies, yet in all these instances there is a more or less full record of the original range of the creatures. In other cases also mammals have been utterly exterminated by human agency from countries of which they were originally inhabitants, as is exemplified by the disappearance from the British Islands of the bear, the wolf, the beaver, and the wild boar within the historic period, although they still survive in other parts of their habitat.²

III. MAN

DIVISIONS OF MANKIND.—The genus *Homo* (Man) is on the whole cosmopolitan, for man is able to adapt himself to environment in every part of the globe. In the icy Arctic regions, in the sweltering tropics, on lofty table-lands, and in

countries below the level of the sea, man makes his habitation. As Dr. H. R. Mill well says:

Alone amongst the animals man, in virtue of his higher intelligence, has the power, while always under the control of his surroundings, to react upon his environment in such a way as to render its action more beneficial to himself. By cultivation and breeding he alters the character and the distribution of plants and animals, by works of draining and irrigation he modifies the natural watering of the land, by cutting canals and building dykes he changes the relative positions of land and sea even to the severance of continents. Engineering works enable him to overcome the resistance to free movement presented by vast stretches of waste land, great rivers, mountains, and the ocean itself.

Ethnologists divide mankind into four primary groups—the *Ethiopic* or *Black*, the *Mongolic* or *Yellow*, the *American* or *Red*, and the *Caucasic* or *White*. This division is partly based on colour and partly on geographical distribution.

ETHIOPIC OR BLACK.—The *Ethiopic*, *Negro*, or *Black* type is distinguished by deep brown or black skin; short, black, and woolly hair; sparse beard; thick, everted lips; broad, flat nose; prominent black eyes, with yellowish cornea; and flat foot. The Black type is found in tropical and subtropical regions, and is usually of primitive culture unless educated by contact with whites.

MONGOLIC OR YELLOW.—The *Mongolic* or *Yellow* type is characterized by various shades of yellow; small, concave nose; thin lips; prominent cheek bones; small, oblique black eyes; and long, coarse, and black hair, with no beard. The Mongolic type occupies the greater part of Asia, and is capable of a high culture.

AMERICAN OR RED.—The *American* or *Red* type is distinguished by slightly projecting, massive jaws; somewhat prominent cheek bones; large, straight, or aquiline nose; small straight black eyes; coppery skin, shading off to yellowish or brown; long, coarse, black hair, scant beard. This type is peculiar to America, and contains representatives of many stages of culture which apparently developed without contact with any other race until the close of the fifteenth century.

CAUCASIC OR WHITE.—The *Caucasic* or *White* type originated in the north temperate zone and has spread over the entire world. Huxley and others divide the Caucasian race into two types: (1) The *Xanthochroi*, or blond, characterized by a long head; moderately large blue or gray and straight eyes; florid skin; and long, wavy, flaxen, light brown, or red hair. (2) The *Melanchroi*, or dark, distinguished by a round head in the north, and long in the south; large black eyes; pale white skin; and wavy, curly, brown, or black hair. The nose of both types is large, straight, or aquiline; the cheek bones small; and features regular. The Caucasian type has attained the highest culture, and has brought all the people of the Ethiopic type and many of those of the Mongolic under their domination.

The population of the world is approximately 1,600,000,000, distributed as follows:

BY CONTINENTS	
Asia	850,000,000
Europe	446,800,000
Africa	140,000,000
America (North and South)	196,000,000
Australasia and Polynesia	16,000,000
Total	1,648,800,000

¹F. W. Gamble, "The Animal World" (1911).

²R. Lydekker, "A Geographical History of Mammals" (1896).

BY RACE

White (Caucasic)	865,800,000
Yellow (Mongolic)	581,000,000
Black (Ethiopic)	175,000,000
Red (American)	27,000,000
Total	1,648,800,000

CULTURE ZONES.—The region most favourable to man's highest development is known as a *culture zone*. In the Old World this privileged area lies between 25° and 50° N., and within this zone have flourished all the great centres of civilization in the world's history—Egyptian, Babylonian, Assyrian, Persian, Indian, Chinese, Ægean, Hellenic, Phœnician, Etruscan, Roman, and later European. Within it also are found the homes of the highest forms of religion known to the world: Jewish, Buddhist, Christian, and Mohammedan. From it also have emanated the three great linguistic groups: Hamitic, Semitic, and Aryan. These sum up the highest proof of the theory that all living forms are the product of their environment. Opposed to these instances of high development are the savages of central and southern Africa, east Malaysia, New Guinea, Australasia, Melanesia, and Tierra del Fuego. To these may be added those races whose history is marked by changes from barbarism to civilization and back again to barbarism: Indo-Chinese, people of the Deccan, central Arabians, Tibetans, Mongolians, Siberians, and the people of the table-lands and Arctic stretches in the western hemisphere. It is noticeable that in the New World the culture zone approaches the equator more nearly than in the Old World, because of the greater height of land in that region of the western hemisphere.

MAN'S POSITION.—Darwin's closing words in "The Descent of Man" may be fitly quoted:

Man may be excused for feeling some pride at having risen, though not through his own exertions, to the very summit of the organic scale; and the fact of his having thus risen, instead of having been aboriginally placed there, may give him hope for a still higher destiny in the distant future. . . . We must, however, acknowledge, as it seems to me, that man with all his noble qualities, with sympathy which feels for the most debased, with benevolence which extends not only to other men but to the humblest living creature, with his god-like intellect which has penetrated into the movements and constitution of the solar system—with all these exalted powers—Man still bears in his bodily frame the indelible stamp of his lowly origin.

GOVERNMENTS

There are two characteristic forms of government, the *monarchical* and *republican* or *democratic*.

MONARCHIES.—In a monarchical form of government, the ruling power is vested in a monarch whose office is generally hereditary. There are three kinds of monarchies: (1) *Despotic*, like those of some barbarous peoples, in which the ruler is free from all human limitations and his will is the only law; (2) *Absolute* or *autocratic*, where the people are governed by laws in which they had no share in making, as in the case of Russia previous to the revolution of 1917; (3) *Limited* or *constitutional*, in which the monarch is head of the State, with more or less administrative power, but in all matters of importance he is compelled to ask the advice and consent of representatives elected by the people. The laws are made and, in great measure, administered by the legislature, as in the United Kingdom.

REPUBLICS.—In a republican form of government, the

ruling power is in the hands of the people, who elect a president from among themselves to exercise that power, as in the United States, France, Switzerland, and Portugal. As in limited monarchies, the laws are made by elected representatives. In some respects a president is more powerful than a monarch, for he combines two kinds of power which under a hereditary monarchy are kept separate. He is the head of the State, and is also a party leader, dispensing his patronage among his own followers and framing his policy with a view to the success of his party in the next election. "Next to the controlling authority of the people themselves," said Daniel Webster, "the preservation of the government is mainly committed to those who administer it. If conducted in wisdom, it cannot but stand strong. Its genuine, original spirit is a patriotic, liberal, and generous spirit . . . a spirit of friendship, and not a spirit of hostility toward the States; a spirit careful not to exceed, and equally careful not to relinquish its just powers."

LANGUAGE

There are approximately 3,500 languages and dialects spoken in the world, but few of these are wide-spread. English is the chief commercial language, due to its predominance in the British dominions and in the United States of America. A corrupt form of the English language, arranged according to Chinese syntax, and known as *pidgin English*, is used as a lingua franca in parts of the Far East. In India, Hindustani is widely used in a similar manner between people of the different races. Arabic, sometimes in a corrupt form, is the chief language of commerce throughout Africa north of the equator and the Near East. Owing to the early conquests of the Spaniards and Portuguese, their languages predominate in Latin America. French is the language of diplomacy, and is usually employed by governments in international deliberations. The principal European tongues are divided approximately as follows:

LANGUAGE	PEOPLE
English	160,000,000
German	120,000,000
Russian	100,000,000
French	70,000,000
Spanish	55,000,000
Italian	40,000,000
Portuguese	30,000,000

The English language contains more than 500,000 words, of which nearly one half consists of scientific terms and of archaic, obsolescent, or obsolete words.

TRANSPORT BY LAND

Transportation is at all times a true criterion of material progress. Livingstone expressed the opinion that if civilization was ever to penetrate the dark continent of Africa it must be the result, not of the unaided missionary, but of the new trade routes. Cut off the means of transport from any place, however rich in natural resources, and stagnation will quickly follow. An illustration of this is afforded by the Great War, which caused a virtual stoppage of all sea-borne trade at Hamburg and other German ports.

PRIMITIVE METHODS.—In primitive times, as even to-day in unfrequented and inaccessible regions, we find primitive conditions. The sturdy shoulders of the mountaineer, or the head of the swarthy negro, must perforce be employed

when other methods are not available. In the development of land transportation, the first motive force is always the physical strength of man himself; the second, the strength of animals subjugated by man, (1) as beasts of burden, and (2) as beasts of draught; and, finally, the giant forces of steam and electricity obedient to man's will.

In America, at the time of its discovery by Europeans, human strength furnished the only known means of land transportation; for the natives were on the whole ignorant of the use of beasts of burden; indeed, the fauna of the continent was almost devoid of any suitable species. The Peruvians alone seem to have had, in the llama, the only available beast of burden. Mexico presents a phenomenal instance of commercial development resting almost solely on the most primitive form of land transportation. The Mexican merchants travelled about the country with a horde of porters, each carrying a load of fifty or sixty pounds, and travelling about fifteen miles a day. This lack of any natural species suitable to burden-bearing was a heavy handicap to the early races of the New World, which makes the extensive land commerce of the Mexicans a matter of amazement.

PACK ANIMALS.—The second stage in the development of land transportation is the employment of pack animals—the ox, the ass, the horse, the mule, etc.—animals which were in use in the eastern hemisphere from time immemorial, their use marking a great advance in efficiency, speed, and economy. In southern Europe, in Asia, and in all mountainous regions where roads are bad, beasts of burden are still commonly employed. The yak and mountain sheep traverse the narrow, winding paths of the Himalayas with loads on their backs. The llama bears the produce of the Andean mines down to the seaport towns. The camel, with a store of food in its hump and of water in its stomach, traverses the rough tracks of the desert for days without food or drink, covering about twenty-five miles a day. Long strings of camels journey together in a caravan, and formerly all the silks and spices of the East reached Europe in this manner. The chief caravan routes in Asia now lie beyond the railroads. In Africa the caravans journey between the railroads, the oases of the Sahara, and the Sudan.

DRAWN VEHICLES.—With the growth of commerce and civilization, drawn vehicles came into use. Most uncivilized tribes are unfamiliar with any form of vehicle, *e. g.*, the Australian aborigines and the Melanesians. The cart was gradually evolved from the two trailing branches attached to the sides of a horse. The sledge represents the middle stage. Rollers were next placed under the framework of the sledge, and step by step wheels began to be formed, as ease of traction became better understood. The wheels at first were solid, and in appearance were something like a grindstone. The wheels of the East Indian *reckla*—a two-wheeled vehicle drawn by oxen—are usually of this kind. Although wheeled vehicles were known in China, India, and Egypt from remote antiquity, while, as Herodotus tells us, the ancient Scythians or Tatars pitched their tents upon cumbersome wagons, each of which needed more than twenty oxen to haul it, yet, as the construction of roads did not keep pace with inventive skill, the vehicles were only of limited usefulness. Four-wheeled vehicles were known in Europe during the Bronze Age, for remains have been discovered in the tombs of Scandinavia and the lake-dwellings of Italy.

In polar regions where no vegetable food is obtainable sledges drawn by dogs are used. A team of twelve Eskimo dogs can haul nearly half a ton on a sledge for eight hours a day. The reindeer, too, is used for drawing sledges over the

tundras of northern Europe, which it crosses at a speed of about 100 miles a day. Across the South African veldt and the trackless plains of Australia and America, bullock wagons drawn by from two to forty oxen form the caravan of the trader. Dogs and sometimes sheep draw small carts on the Continent. In many places in the Far East and in South Africa the Japanese jinrikisha, drawn by one or more men, takes the place of a cab.

POWER-DRIVEN VEHICLES.—The third or modern stage in the development of transportation by land is characterized by the employment of new natural forces. Steam, electricity, and the internal-combustion engine have revolutionized the methods of transport, and have been the means of opening up many regions to commerce. Railroads can transport considerable quantities of merchandise at a time, hence the cost of haulage is less than by other methods of land transportation. The recent development of motor cars has led to a great increase in the use of roads for the conveyance both of passengers and of goods; while the aeroplane may prove as adaptable to the pursuits of peace as it has to those of war.

GOVERNMENT CONTROL OF RAILROADS.—European railroads are largely under government control, and this policy is an outgrowth of (1) state subsidies, (2) state construction, and (3) state guarantee of traffic monopolies. The policy of government ownership of railroads is due to various determining factors, such as military necessity in Germany, Russia, and Austria-Hungary. In France, such railroads as are not owned by the Government are held on leases by which the ownership will eventually revert to the Government. In Italy and the lesser European states, and, to a certain extent, in Spanish America, South Africa, India, Australia, and New Zealand, want of private capital and enterprise and the objection to foreign capitalization are the chief determining causes of public ownership; though in the Australasian colonies it was believed that public interests would best be served by such ownership. The only instance of a railroad owned and operated by the United States Government is the Panama Railway, purchased in 1905. This ownership, in view of its value in connection with the Panama Canal, and as a link between the Atlantic and Pacific coast ports, is of great importance to the United States. The only example of a state-owned steam railroad in the United States is a short line in North Carolina, which, however, is at present operated under lease. The Intercolonial Railway of Canada between Montreal and Halifax was built and is operated by the Dominion Government in conformity with the provisions of the British North America Act of 1867.

In the United States, Canada, Great Britain, and other countries having private railroad systems, the Government exercises the right of supervisory control, both as regards the facilities afforded and the rates charged. Such control is necessary in the interests of the general public; for railroads come under the general category of "common carriers," and are compelled by law to carry any person who can pay the fare, as well as to transport freight for the general public, without favour or hindrance.

RAPID TRANSIT IN CITIES.—The problem of rapid transit in large cities has been largely solved by means of overhead and underground railways in addition to surface cars. The first elevated railway was built in New York City in 1867, but such lines were not successfully operated until 1872, when the New York Elevated Company began running trains from Battery Park along Greenwich Street and Ninth Avenue to Thirtieth Street. In succeeding years lines were built in

Brooklyn, Chicago, and Boston; while in foreign countries elevated railways were constructed in Liverpool, Paris, and Berlin. The first underground line was laid in 1886 by the City and South London Railway, two parallel tunnels being built from 40 to 80 feet below the surface with a diameter of 10 feet 9 inches. The "Twopenny Tube" in London was a development of this plan; while to-day London has a veritable network of underground electric railways. Another form of underground railway was introduced in Budapest in 1893, which is known as the "cut-and-cover" system. Shallow tunnels are roofed with steel beams upon which the street pavement actually rests. Similar lines were built in Boston, New York, and Paris. On practically all elevated and subway railways electricity is now employed.

TRANSPORT BY WATER

Transport by water has always been the most important in the history of the world's commerce. Vast portions of the earth's surface can never be reached except by water, unless aerial navigation should in the future provide a practicable alternative.

The river was the highway of trade long before roads were dreamed of. The great waterways became the first seats of population and empire. They were the link with the outer world, and were naturally the first channels of transport to be developed. Water transport has ever been cheaper than transport by land, and was one of the earliest means of international trade. Trade invariably seeks the lines of least resistance; hence the routes of ancient commerce followed the world's waterways, and were only checked or cut asunder by barriers of transport. These breaks in transportation, necessitating the transfer of commodities, determined the location of industrial centres. The greatest commercial cities, from ancient times to the present day, have invariably grown up near the junction of land and water transport. Maritime commerce along the coasts grew naturally out of the river trade; and when the art of navigation had so advanced that the passage to India around the Cape and the crossing of the Atlantic extended the horizon of mediæval enterprise, maritime transportation became the paramount agent of international commerce, and has remained so to the present time.¹

STEAMSHIPS.—The same natural forces that revolutionized transport on land created a new era in the progress of water transportation. Almost a century ago the first steamship made its way across the Atlantic. In 1819—the year that Queen Victoria was born—the *Savannah* (380 tons), equipped as a full-rigged ship and provided with a 90 horse-power horizontal engine, with side paddle wheels and boilers in the hold, crossed from Savannah to Liverpool in twenty-five days, eighteen under steam. Pitch pine was the fuel employed. The first boat to cross the Atlantic entirely under steam was the *Royal William*, which made the voyage from Quebec to London in 1833. In 1838 the world was thrilled with the news that Brunel's masterpiece, the *Great Western*, had crossed the Atlantic from Bristol to New York in fifteen days, having succeeded in carrying fuel enough for the entire voyage. Henceforth a regular line of steamships plied across the Atlantic, and Liverpool sprang into fame as a port, taking the place of Bristol. The first iron-built ocean steamer was the *Rainbow* (580 tons), launched in Liverpool in 1838. Screw propulsion was regarded as impracticable until John Ericsson, who afterward built the *Monitor*, had put it to the test. The screw was not universally adopted on ocean liners till 1862, both paddle wheels and wooden hulls lingering much

longer in America than in Great Britain. Twin screws first came into use in 1880.

In 1826 the first steamboat navigated the Allegheny River. The trip from New York to St. Louis by steamer, via New Orleans, used to occupy twenty-nine and a half days. The trip from St. Louis to New Orleans took twelve days in 1823, and five years later the *General Brown* made it in nine days, four hours. Thirty years afterward, so much had steamers been improved, this same passage was easily made in three days.

RIVALRY BETWEEN STEAM AND SAIL.—After the commercial success of the steamship was assured, then began the struggle for supremacy between steam and sail. Larger sailing ships were built, every advantage being taken of the prevailing winds. The substitution of iron for wood was of less benefit to the sailing vessel than to its rival; while the introduction of screw propellers and compound engines, and later of triple or quadruple expansion engines, too heavily handicapped the sailing ships in this unequal contest. Each year the percentage of steam tonnage increases, while that of sailing tonnage correspondingly declines. Since 1880 further economy has been effected by building special types of vessels for special requirements—swift ocean liners, commodious river boats, barges for coastwise trade, slow but regular freighters, and cheap but accommodating ocean tramps.

RECENT IMPROVEMENTS.—The recent adoption of turbine engines in place of modern reciprocating engines marks a further stage of marine development. Besides giving increased speed, the turbine takes up less space, weighs less, and reduces vibration to a minimum. The Allan Line steamship *Victorian*, built in 1904, was the first vessel fitted with turbine engines. The two sister ships of the Cunard Company, the ill-fated *Lusitania* and the *Mauretania*, each with a tonnage of 31,938, were the largest and fastest vessels so equipped at the time of their launching (1907). In 1909 the *Mauretania* made the passage from Queenstown to New York in the record time of four days, ten hours, forty-one minutes. This same steamer made a record day's run of 676 knots on January 25, 1911. It is interesting to compare this performance with that of the leviathan of a past generation, the *Great Eastern* (completed in 1859), whose average speed was about fourteen knots, and whose longest day's run did not exceed 333 knots—less than half that of the *Mauretania*. But the chief usefulness of the *Great Eastern* was in the laying of the Atlantic cable.

The application of internal-combustion engines to large steamers shows a marked advance in the development of marine engineering. With the introduction of Diesel engines, further economies in fuel consumption were effected.

Owing to recent inventions passengers enjoy greater immunity from accidents, the majority of passenger steamers being now fitted with installation of wireless telegraphy and with submarine signalling apparatus.

CANALS.—Navigation canals may be regarded either as a branch of land or water transport. Their greatest historic importance was just before the rise of railroads. As a branch of land transportation they are disappearing, but as a branch of water transport canals have entered a new stage of development.

Canal boats may be propelled by hand or steam power, or towed from the bank. On still water a horse can draw as much as 100 tons; hence canals are of great service for conveying heavy and bulky goods. For more valuable and perishable goods, this method is usually too slow.

¹C. O. S. Mawson, in "The New Century Book of Facts" (1909).

It is essential for a canal to be made on a dead level. Owing to irregularities of country, canals are usually constructed in a number of sections, at different elevations, the boats being transferred from one level to another by locks, or hauled up inclined planes by steam power, or hoisted by hydraulic lifts. Not only may rivers and seas be connected by canals, but rivers themselves may be canalized by deepening and broadening, while waterfalls or rapids may be avoided by canals.

SHIP CANALS.—With the development of steam navigation and maritime commerce arose the necessity of shortening routes wherever possible, hence canals of large dimensions were constructed to permit the passage of the largest vessels. The modern ship canal has played a part of vast economic importance. It cost the Canadian Government more than \$62,000,000 to have the Gulf of St. Lawrence linked to the Great Lakes; but to-day that seven-linked chain is the greatest freight route in the world, and nearly one third of the population of America is dependent on it for their export and import trade.

The value of a ship canal cannot be estimated by the tonnage traffic which yearly passes through. To bring India, for example, within fourteen days of London, and thus draw East and West more closely together, is an achievement whose effect on civilization is hardly less appreciable than on commerce. The Suez Canal, which cuts through the Isthmus of Suez and links the Mediterranean and the Red Sea, is one the world's greatest waterways. Before it was opened in 1869 the ocean trade of Europe with Oriental countries was by way of the Cape of Good Hope, and was small in comparison with the enormous volume of traffic which now passes through the canal. The Corinth Canal, connecting the Gulf of Corinth with the Gulf of Ægina, though only four miles long, is too beset with difficulties to

tempt many vessels from the open sea route. The Kaiser Wilhelm Canal, which links Kiel Bay with the mouth of the Elbe, is of greater strategic importance to Germany than as a factor in her commerce. The Manchester ship canal is the most important canal in Great Britain, and admits the largest ocean-going vessels from the Mersey to that inland city. The Cape Cod Canal shortens the water route between Boston and New York by seventy miles.

PANAMA CANAL.—The greatest engineering achievement in the history of canal construction is the new Isthmian waterway constructed by the United States Government across the Isthmus of Panama. The Panama Canal is about fifty miles long from deep water in the Caribbean Sea to deep water in the Pacific Ocean, and has a summit elevation of eighty-five feet above sea-level. The channel varies in width from 300 to 1,000 feet at the bottom. The canal was formally opened for traffic on August 15, 1914, when the steamship *Ancón* passed from the Atlantic to the Pacific in ten hours.

What the Panama Canal means not only to the United States but to the world at large cannot be fully realized at this early date. The shortening of routes alone is considerable. The Canal shortens the distance between New York and the following places as follows: San Francisco, 8,100 miles by water; Yokohama, 3,729 miles; Sydney, 3,806 miles; Wellington, New Zealand, 2,542 miles; Hawaii, 5,800 miles; Manila, 5,800 miles. The Canal brings Callao 4,320 miles nearer Liverpool by steamer, reducing the distance from 10,230 miles to 5,910 miles and saving about fourteen days in time. To Valparaiso the shortening in distance is 1,813 miles, and the saving of time is about six days. By its means New Orleans is only 3,264 miles from Callao. Between New Zealand and Europe there is an average saving of 1,600 miles. See *Map of U. S. Canal Zone*, pp. 116-117.

THE NEW ATLAS

MAPS AND THEIR USES

NO MARINER would attempt to cross the ocean without a chart; no student should attempt to traverse the vast and intricate fields of geography without consulting an Atlas.

VARIETY OF MAPS.—Every phase of geographical knowledge has its own map. We have physical maps in a great variety: those showing the surface features—the coast lines, mountains, rivers, canals, heights and depths, etc.; climate maps, illustrating the condition of the atmosphere, its temperature, humidity, and currents; biological maps, showing the distribution of vegetables and animals. Then there are economic maps, representing the various phases of production and transportation of commodities; ethnological maps, showing the distribution of mankind by population, race, religion, or language; political maps, defining political boundaries; travel maps, showing railway, steamship, or automobile routes; historical maps, illustrating the geographical distributions of former periods; in short, the ingenuity of the cartographer has illustrated every fact of geography capable of illustration by means of a map.

SCALE OF MAPS.—The scale to which a map is drawn is usually expressed as the ratio of a distance on the map to the corresponding distance on the earth's surface. It is often expressed by reference to some lineal unit; thus, the map of Louisiana on page 202 is drawn to a scale of 36 miles to an inch. A scale of 1:1,000,000 signifies that each lineal unit on the map represents 1,000,000 such units in nature. A scale of one statute mile to the inch, as in the British Ordnance Survey general map, is the same as the scale of 1:63,360—63,360 inches being the equivalent of one statute mile. Where the scale is omitted, it can be ascertained by dividing the actual length of a meridian degree by the length of a degree measure upon the map.

DIRECTION ON A MAP.—Unless otherwise indicated, the top of the map corresponds to the north. A map of the polar regions is commonly drawn with the pole in the centre; thus, in a map of the Arctic all lines pointing to the centre are pointing northward, while all lines pointing away from the centre are pointing southward. In a map of the Antarctic the reverse is the case, the centre being the South.

GEOGRAPHICAL MEASURES.—The circles of *latitude* (*i. e.*, distance north or south from the equator) are divided into degrees, minutes, and seconds. The 180 degrees of latitude are numbered from 0 at the equator to 90 at the north and south poles. New York, for example, is in latitude 40° 45' 23" N.; Valparaiso, 33° 1' 53" S. The circles of *longitude* (*i. e.*, distance east or west from a standard meridian, as that of Greenwich), perpendicular to the equator and passing through the north and south poles, are divided into either degrees (*longitude in arc*) or hours (*longitude in time*). The 360 degrees of longitude are numbered from the primary circle of longitude, or meridian, east and west, to meet at 180. Thus, the longitude of New York may be expressed as 74° or 4h. 56m. W. (*i. e.*, west of Greenwich).

The British *statute mile* is equal to 5,280 feet (1,609.3 metres), and is used in Great Britain and the United States. The *geographical* or *nautical mile* is the length of one minute of latitude, sixty miles being equal to one degree of the equator. If the earth were a perfect sphere, every minute of latitude would be of the same length; but, as it is spheroid, the length of a minute increases from 6,080.27 feet at the equator to 6,108 feet at the poles. The mean length of a geographical or nautical mile is 6,076.8 feet. The British *Admiralty mile* is 6,080 feet (1,853.2 metres). That of the United States Coast Survey is 6,080.27 feet (1,853.248 metres). That of France is 1,851.9 metres.

PRIME MERIDIANS.—Various first meridians have been used since the days of Ptolemy. The meridian of the island of Ferro in the Canary group was selected in 1630 and continued to be used for a long time. It was assumed to be exactly 20 W. of the Paris observatory. The meridian of Greenwich is now almost universally accepted as the prime meridian; but in the case of topographical maps the following meridians are frequently employed:

OBSERVATORY	LONGITUDE FROM GREENWICH	
	IN TIME	IN ARC
Paris (Obs. National) . . .	oh. 9m 20.9s. E.	2° 20' 14" E.
Brussels (Old Town) . . .	0 17 28.6 E.	4 22 11 E.
Rome (Collegio Romano) . . .	0 49 55.6 E.	12 28 53 E.
Berlin	0 53 34.9 E.	13 23 42 E.
Stockholm	1 12 14.0 E.	18 3 30 E.
Cape Town	1 13 58.5 E.	18 28 41 E.
Petrograd (Pulkowa Obs.) . . .	2 1 13.5 E.	30 19 39 E.
Bombay	4 51 15.7 E.	72 48 55 E.
Madras	5 20 59.4 E.	80 14 50 E.
Sydney, N. S. W.	10 4 49.5 E.	151 12 23 E.
Madrid	0 14 45.4 W.	3 41 16 W.
Lisbon (Naval Obs.)	0 36 44.7 W.	9 8 23 W.
Ferro (assumed)	1 10 39.0 W.	17 39 45 W.
Washington (New Obs.)	5 8 15.7 W.	77 3 56 W.
Washington (Old Obs.)	5 8 12.15 W.	77 3 1 W.

TOPOGRAPHICAL MAPS.—Such maps must be on a relatively large scale, in order to show roads, villages, and lesser features. To France belongs the credit of the first topographical map on scientific principles, produced between the years 1750 and 1793. England began its Ordnance Survey in 1784, the primary triangulation being completed in 1858. Trigonometrical surveys on various scales have been undertaken over practically the whole of Europe. Outside Europe, such surveys have been made only in detached areas.

In the United States systematic surveys have been undertaken since 1879, partly by the United States Coast and Geodetic Survey and partly by the Geological Survey. Independent surveys of some States have also been made by the States themselves. The maps of the more thickly populated parts of the Union are on a scale of 1:62,500, and those of the rest of the country on half or a quarter of that scale.

USE OF MAPS.—Topographical and political maps are the ones most generally consulted, the location of places, roads, railways, rivers, and boundaries being among the everyday needs of the tourist, the merchant, and the average reader. The use of special maps and the value of map comparisons are less widely appreciated. By comparing two or more maps, the causal connection between various distributions will become apparent. For instance, a racial map and a language map should be studied together, likewise a climate map and a vegetation map.

Rightly employed, a map is an interpreter *par excellence*. The history of any great war will be more readily understood by comparing the political map with a physical, racial, or other special map of the belligerent zones. The strategy of a campaign will be clearer by studying the physical nature of the theatre of war together with the location of the principal roads, railways, and railway centres. For be it remembered that what the chart is to the navigator the map is to the general—it is the prime essential.

In reading the "Geographical Manual," constant reference should be made to the corresponding maps. In this manner, the facts of geography will assume definite and logical form, and a composite picture of lasting value will be built up in the mind of the reader.

WHAT THE MAPS TELL US

Map of the World at War, p. 1.—This map brings home to us in a very striking manner the fact that almost the whole world is engaged in the Great War. It will be seen that the German Alliance (Germany, Austria-Hungary, Bulgaria, and Turkey) occupies a relatively small territory right in the centre of the map—the powers of autocracy and might opposed by the powers of democracy and right. It will be further seen that the large colonial empire of Germany in Africa, Oceania, and China has been swept away. The map will likewise show the further contraction of the Turkish frontiers.

Maps of the Western Front, pp. 2, 3, 6, 7.—On these maps of Belgium and France it is possible to follow the most important campaign of the war. Every town and village mentioned in the war reports will be found on these maps. Study well the colour scheme showing the different altitudes. Note the line of hills in the northeast with *Verdun* almost in the centre, and the strong natural positions on which the German line rested after the repulse at the *Marne* will be apparent. The line held by the Germans in this section formed the second line of defence in the French military system; for it was never expected that a German attack would be made through the neutral states of Belgium and Luxemburg. The north of France was practically undefended. It will be seen that the north of France is comparatively flat, and the ease with which the Germans expected to sweep through Belgium to the heart of France becomes clear. The absence of strong natural positions from *Craonne* northward through *Arras*, *La Bassée*, *Ypres*, *Dixmude*, and *Nieuport* makes it all the more remarkable that the Germans were not able to break through to the coast in the first year of the war when the Allies were outnumbered and outgunned. It is this flat region which has created the trench system of warfare. Note also the further advantage acquired by the Germans in having outlets to the North Sea at *Zeebrugge* and *Ostend*, from which they have from time to time made desultory raids on the English coast.

Map of Austro-Italian Frontier, p. 10.—One glance at this map will show the geographical handicap under which Italy is fighting. She is hemmed in by mountains belonging to Austria (the result of the treaty of 1866). The difficulties confronting the Italians on the northern or Tyrolean front are enormous, and the seeming failure of the Italians in this sector is explained by the map. In the northeast the territory is more open, and here trench warfare obtains. The Italians made a thrust at *Görz*, the key to the Austrian defence of Trieste, which they captured on August 9, 1916. Notice the two Alpine valleys of the *Adige* and *Brenta* on the north. These valleys are the natural pathways of an invading army, and if a serious attempt at invasion is made by the Teutons it will be along these historic valleys. See *Italy*, p. 279.

Map of the Balkan States, p. 11.—Note the railway from *Belgrade* through *Nish* and *Sofia* to *Constantinople*. This is the main artery by which the Germans can send supplies to their Turkish allies. With Serbia, Bulgaria, and the greater part of Roumania in the hands of the Germans it will be seen that at present the Teutons hold a strong central position, and command the avenue to the Near East. Then note the position of the Allies at *Saloniki*, and it will be seen that their best approaches of attack upon the trunk railroad will be along the valleys of the *Vardar* and the *Struma*. The danger to the Allied rear in the days of King Constantine's uncertain neutrality will also be evident.

Map of the Dardanelles, p. 13.—This map will show how completely Russia's shipping is bottled up in the Black Sea, so long as *Constantinople* is held by a hostile power. The internationalization of the Bosphorus and the Dardanelles is a possible outcome of the Great War. The ill-fated campaign on the Gallipoli peninsula will be made clearer by studying this map.

Map of Western Russia, p. 14.—The eastern front has been the scene of alternating drives and retreats. It will be seen that the country is generally of an open character, and lends itself better to sweeping operations. *Poland* is the cockpit of eastern Europe as Belgium is that of western Europe. The unification and independence of this ancient country may be looked for as an outcome of the war.

Map of Asia Minor, p. 15.—This map is interesting as showing the supposed original home of the human race in the valley of the Euphrates. The mountainous character of Armenia will be evident. The chief successes of the Russians have been in this region, and especially along the coastal district where their land forces could be supported by the Black Sea fleet. The British are driving along the valleys of the Tigris and the Euphrates, and *Bagdad* has been their immediate objective in this Mesopotamian campaign. In the west we see the Holy City of *Jerusalem*, toward which a British force is marching from Egypt. It is possible that the Holy Land will be wrested from the Turks altogether. See *Turkey*, pp. 288-291.

Map of Eastern and Western Hemispheres, p. 17.—Cut the globe in half and we get two hemispheres. Look at this map and compare them. It will be seen that there is more land north of the equator than south of the equator; the land mass in the Eastern Hemisphere is greater than in the Western Hemisphere. Other striking comparisons may be made. The Eastern Hemisphere has its greatest length from east to west; the Western Hemisphere, from north to south. The former has its principal mountain ranges running west and east; while in the latter they run north and south. Both Hemispheres have their greater peninsulas pointing south; they both also taper to the south. Contrast the Arctic Ocean at the North Pole with the continental mass (Antarctica) at the South Pole.

Map of the World, pp. 18-19.—This map on Mercator's projection shows the parallels of latitude and the meridians cutting each other at right angles, and being represented by straight lines. This produces an apparent enlargement of the polar regions; but this projection is of great value to navigators, for by its means they are enabled to steer by compass in straight lines.

Physical Map of Central and Western Europe, pp. 20-21.—With the exception of the Pyrenees, which separate waters draining respectively to the Atlantic and to the Mediterranean, the great mountain ranges do not form important divides, so that easy routes are generally found from one river basin to another. Water from the northern slopes of the Alps reaches the Mediterranean by the Rhone, the North Sea by the Rhine, and the Black Sea by the Danube. In Russia the divides lie in many places below 600 feet, and continuous waterways cross the continent from south to north, uniting the Baltic with the Black and Caspian seas.

Physical Map of Europe, p. 22.—The advantage of showing the *isotherms* (see p. xii) upon a relief map is at once obvious, for both the false impressions given by considering the sea-level temperatures alone, and the complexity of the isotherms upon an "actual temperature" map are avoided. The map illustrates the fact that in January the temperature over the ocean is high relatively to that over the land; so that, for example, in latitude 50°N., the temperature is 48° F. to the southwest of Ireland and 0° F. to the southeast of the Urals. The southwesterly winds (shown on the Winter Climate map) carry the warmer air across the land, thus giving abnormally high temperatures to western Europe; in the Lofoden Islands, within the Arctic Circle, the temperature is the same as that at *Constanza* on the Black Sea; while the Isle of Wight is warmer than *Venice*.

Racial Map of Europe, p. 22. We see here Middle Europe occupied by German peoples with practically the whole of eastern Europe inhabited by Slavs. The rivalry between these two great races (Pan-Germanism *versus* Pan-Slavism) was one of the underlying causes of the Great War. The colouring will show that Scandinavia and the greater part of the British Isles are inhabited by Teutonic races. In the west of Europe, and in Italy and south Switzerland, we find the Latin races—the French, Spaniards, Portuguese, and Italians. The Roumanians are also of the Latin race. See "Races of Europe," p. 243.

Language Map of Europe, p. 23.—This map is the natural complement of the racial map on the preceding page. The languages spoken in Europe fall into three groups: (1) INDO-EUROPEAN; (2) SEMITIC; and (3) URAL-ALTAIC.

The INDO-EUROPEAN group includes the *Teutonic* branch (German, Dutch, Flemish, English, Norwegian, Icelandic, Swedish, Danish); the *Slavic* branch (Russian, Bulgarian, Rutenian, Serbo-Croatian, Slovenian, Czech or Bohemian, Slovakian, Polish, Wendish, Moravian); the *Baltic* or *Lettic* branch (Lithuanian, Lettish); the *Greek* branch (Greek); the *Latinian* or *Romanic* branch (Italian, French, Spanish, Portuguese, Roumanian, Walloon); the *Celtic* branch (Welsh, Irish, Scotch Gaelic or Erse, Manx, Breton).

The SEMITIC group is represented by Maltese, in the island of Malta. Hebrew is a Semitic language; but Yiddish is a German dialect developed under Hebrew and Slavic influence.

The URAL-ALTAIC group is represented by the *Finnno-Ugric* languages (Finnish, Lappish, Magyar, Estonian, etc.), and by the Tatar-Turkish languages (Turkish, spoken in Turkey, and Tatar, spoken in the Crimea and Kasan). Basque and Albasian are unattached.

Climate Map of Europe (Summer), p. 24.—A low pressure occurs near Iceland, and the pressure also diminishes toward the heated plains of Asia and the Saharan region. Westerly winds blow across central Europe, and there is a uniform distribution of moderate rains. Toward the east of the continent the winds sweep round and move southward; thus southeastern Russia is dry, for these northerly winds are blowing toward a much hotter area and are taking up water vapour rather than yielding it. Over the Mediterranean lands the winds are on the whole northerly, so that the rainfall is much less than in winter, and is in places very scanty. See "Climate," pp. xi-xiii.

Climate Map of Europe (Winter), p. 25.—This map shows a well-marked pressure gradient toward the Icelandic "low" (that is, an area of low barometric pressure), accompanied by strong southwesterly winds. The relation of the wind arrows to the *isobars* (see p. xii) should be noticed; and it must be remembered that the closer the isobars, that is, the steeper the gradient, the stronger the winds. The winds are almost completely drained of their moisture by the margins of the continent, so that the rainfall or snowfall rapidly decreases inland.

Vegetation Map of Europe, p. 26.—The regions bordering the Arctic Ocean have the usual vegetation of the tundras (see under "Vegetation," p. xvi). Extensive forests, chiefly of pines and firs, occupy the land north of 60° latitude, extending farther southward toward the east where the winters are more severe. This region is little suited for agriculture.

The broad-leaved forests of such trees as oak, beech, and maple, which once almost covered central and western Europe, occupied regions where no very extreme conditions, whether of cold or heat, or deficient rainfall, were found. This climate was eminently suitable for agriculture and pasturing, hence these forests have been almost destroyed, and the largest areas now remaining are found in Russia, Austria-Hungary, and the North Baltic region. The conifers reappear on the mountains and elsewhere where the climate and soils are suitable. The high summer temperature and the low rainfall of southeast Europe are among the causes of the gradual change from forest to temperate grassland or steppe. Still farther to the southeast the increasing heat and drought cause the rich grasses and herbs of the steppe to become less and less abundant, so that a semi-desert region of sparse, scattered vegetation, varied by patches of true desert, borders the Caspian Sea. The steppes are naturally suited for pasturing; but in the richer western and northwestern portions of the grasslands the cultivation of cereals

becomes increasingly important. In the Mediterranean districts the hot, somewhat dry summers, and the comparatively mild wet winters produce a special type of vegetation. Evergreens abound, while the summer sunshine makes the region favourable for the production of the vine and many luscious fruits.

Economic Map of Europe, p. 27.—This map should be compared with the Vegetation Map. The most highly productive areas are the broad-leaved forest and temperate grassland regions and parts of the Mediterranean region, although in the latter irrigation is frequently necessary. Note particularly the areas where coal and iron occur together. As *Russia* may shortly experience an industrial rebirth, note should be taken of the coal field lying near the great mineral region of the Central Urals, thus enabling the metals to be worked locally. See "Vegetable products" and "Minerals" under *Europe*, p. 245.

Population Map of Europe, p. 28.—This map may be compared particularly with those showing vegetation and economic features. The scantily peopled areas include the greater part of the region north of latitude 60° together with the semi-desert depression to the north of the Caspian Sea, the Scottish Highlands, and the high mountain regions.

As a rule the most densely peopled areas correspond with the industrial regions, and the gathering of the population into great cities is specially characteristic of Great Britain and Germany. Italy affords a striking contrast to the Iberian and Balkan peninsulas, having a far greater density of population although the two latter have far greater mineral resources; this comparison suggests that national character and political factors must be taken into account in estimating the economic possibilities of a region. In general the population is more dense round the coasts, where the additional occupations of fishing and commerce can be carried on. River valleys, both from their fertility and as being trade routes, are also usually well peopled. An example of the effect of the poverty of the soil upon the density of population is afforded by the north German plain.

Political Map of Europe, p. 29.—This map shows the German "barred zones" in connection with the naval operations of the Great War. Note especially the "safety lane" to *Falmouth*, England, along which the Americans were to be permitted to send one vessel per week, provided it were striped like a zebra. This insolent request on the part of the German government tried American patience to the breaking point, and was shortly followed by a rupture of diplomatic relations and by war.

Map of Central and Western Europe, pp. 30-31.—This map on a relatively large scale shows the various boundaries in an exceptionally clear manner. Note the present boundary of *Turkey*, and remember that only a few years ago *Turkey* in Europe stretched across to the Adriatic. Note the *Kaiser Wilhelm Canal* between Kiel and the Elbe; its strategic importance is very patent. Note also the commanding position of *Gibraltar* at the entrance to the Mediterranean, and of *Constantinople* at the approach to the Black Sea.

Map of Central Europe, p. 32.—This map gives prominence to railroads and fortified towns. *Germany* has a greater railroad mileage than any other country in Europe. *Russia* comes next, although when her extensive area is taken into account the mileage is considerably discounted. *France* ranks third, followed by *Austria-Hungary*, *Great Britain*, and *Italy*. The total railroad mileage for Europe is 215,140; that of America is 355,000.

In regard to fortified towns, they are the thickest along the western frontier of Germany. The chain of fortresses from Liège to Belfort is eloquent of the danger which Belgium and France anticipated from German militarism. The chain of fortresses across northern Italy forms a second line of defence against northern invasion. The virtual absence of fortresses on the frontier between Germany and Austria is significant.

Map of the British Isles, p. 33.—The British Isles are an archipelago consisting of two large islands and many smaller ones. Physically, *Scotland* is the most mountainous part of the British Isles. Note the deeply indented coast line and the many important seaports. Note the dense population of the *Midlands*, as well as of *Lancashire* (Manchester, Oldham, Bolton, Liverpool, etc.) and of the *West Riding of Yorkshire* (Leeds, Bradford, Halifax, etc.). These are the industrial and most populous districts. *Ireland* has comparatively few large towns. The steamer routes indicated on the map tell their own story of British mercantile supremacy. Note the position of *Liverpool*, *Manchester*, *Plymouth*, *Southampton*, *London*, and *Dover*. See pp. 245-256.

Map of England and Wales, p. 34.—This map shows the counties. See Table on p. 253. *Yorkshire* is the largest county, and *Rutland* the smallest. Notice the network of railroads, the main lines all converging on London. The broadest part of the country lies nearest to the continent.

Map of Scotland, p. 35.—The north of Scotland in its coast line, its mountainous character, and the large number of its islands somewhat resemble Scandinavia. Contrast the east and west coasts; the former is generally low and fairly regular; the latter is mountainous and very irregular, with deep indentations. Note the position of *Glasgow* on the Clyde and of *Edinburgh* on the Firth of Forth. See p. 254.

Map of Ireland, p. 36.—Ireland forms a breakwater to Great Britain: it prevents the Atlantic billows from striking part of the British shore, and it takes the first supply of the rain from the Atlantic; hence its verdure has earned for Ireland the name *Emerald Isle*. Ireland is broader, shorter, and more compact than Great Britain. The western coast is mountainous and irregular. The east and south coasts are lower and more regular, and have excellent harbours. Note the position of *Belfast*, *Dublin*, and *Queenstown*. See pp. 254-255.

Map of Sweden, Norway, and Denmark, p. 37.—Norway and Sweden form the largest and longest peninsula in Europe. Like Italy, it splits into two in the south. Norway is a narrow region of mountains and plateaus; Sweden is a broad region of sloping plains. Note the deep indentations on the Atlantic coast; these are called *fjords*. The plateaus of Scandinavia are called *fjelds*. Denmark, the "Keeper of the Baltic Portals," has a broken

coast line. Note the position of *Copenhagen*, *Christiania*, and *Stockholm*. See pp. 256-258.

Map of the Netherlands and Belgium, p. 38.—The territory of the Netherlands has been formed partly by deposits from rivers and partly by conquests from the sea. Notice its advantageous position at the mouth of the Rhine—the great western waterway of Europe. Note the position of *Rotterdam*, *Amsterdam*, and *The Hague*. See pp. 259-260.

Belgium likewise holds a position most favourable for trade. Note its short coast line (only 42 miles long). The neutral state of Luxemburg lies on the southeast. Note the position of *Antwerp*, *Ostend*, *Brussels*, and *Liège*. See pp. 260-262.

Map of Denmark, p. 39.—This map shows the lost Danish provinces of *Schleswig-Holstein* which were torn from Denmark by Germany. Note the *Kaiser Wilhelm Canal* running southwest from Kiel. See "Sweden, Norway, and Denmark" above, also pp. 258-259.

Map of France, p. 40.—*La Belle France* is the country which lies nearest to Great Britain. Its position enables it to command a large part of the trade of the two busiest seas in the world—the Atlantic and the Mediterranean. France is very compact in shape, and is roughly octagonal. The coast line is long, but its harbours are not so good as those of Great Britain; those on the south side of the English channel forming a striking contrast to the spacious harbours on the north side. Notice the lost territories of *Alsace* and *Lorraine*. Note the position of *Calais*, *Boulogne*, *Havre*, *Paris*, *Bordeaux*, and *Marseilles*. See pp. 262-266.

Map of Germany, p. 41.—Note the strong commercial position of Germany. Its frontiers march with those of the great Continental states; its position on the Baltic gives it facilities for trading with the Baltic countries; its coast upon the North Sea gives it access to Great Britain, America, and other transmarine countries. Every country on the Continent is linked up with the German railway system. The relative extent of *Prussia* and the other constituent states should be observed, as it helps to explain Prussian domination within the Empire. Note the position of *Berlin*, *Hamburg*, *Kiel*, *Helgoland*, *Bremen*, *Cologne*, and *Essen*. See pp. 267-271.

Map of Russia in Europe, p. 42.—This map should be compared with the Vegetation and Population Maps of Europe, in order to understand why certain parts of Russia are more thickly peopled than others. Russia has a small coast line in comparison with its great size. Its commercial position would be improved by free access to the Mediterranean from the rich Black Sea provinces. Its northern ports are ice-bound in winter, with the exception of the new ice-free port of *Alexandrosk* on Catherine Harbour. Note the position of this port, also of *Archangel*, *Riga*, *Moscow*, *Petrograd*, *Odessa*, and *Baku* (in the Caucasus). See pp. 272-275.

Map of Austria-Hungary, p. 43.—Austria-Hungary has a very small seaboard, and practically the whole of this forms part of "Unredeemed Italy." On its interior boundaries it touches the great industrial countries of the Continent. Notice the lie of the mountains; nearly half of the Alps are in Austria. After Switzerland, Austria is the most mountainous country in Europe. The dual monarchy is an agglomeration of states and races. *Bohemia* advances into the heart of the North German Plains. Note the position of *Vienna*, *Trieste*, *Pola*, *Budapest*, *Herzegovina*, and *Sarajevo*, the capital of Bosnia. See pp. 275-277.

Map of Switzerland, p. 44.—Switzerland is the most mountainous country in Europe. It is the playground of the civilized world. From a military point of view, it is a great natural fortress. Though it has no coast line and no water communication with the sea, it occupies a fine commercial position; for it touches the four greatest industrial countries of the Continent—France, Germany, Italy, and Austria. For its industries, it has everywhere at hand the enormous water-power of the Alpine streams. Note the position of *Bern*, *Zurich*, *Lucerne*, and *Neuchatel*. See pp. 278-279.

Map of Italy, p. 45.—In shape Italy has been compared to a boot. It may be divided into three parts. (1) *Continental Italy*, consisting of a level and fertile plain—the Plain of Lombardy—guarded by mountains on the north and south; (2) *Peninsular Italy*, a mountainous plateau almost filled by the Apennines and their branches; and (3) *Insular Italy*, consisting of Sicily, Sardinia, and other islands. Italy holds a commanding commercial position in the Mediterranean, and is provided with excellent harbours. Notice how the Alps shut off Italy from the rest of Europe. Note the position of *Genoa*, *Rome*, *Naples*, *Brindisi*, and *Venice*. See pp. 279-281.

Map of Spain and Portugal, p. 46.—The Iberian Peninsula, as this is called, has many excellent harbours on the two great commercial seas of the world—the Atlantic and the Mediterranean. The Pyrenees form the northern boundary of Spain. The mountains of the Peninsula mostly run west and east. The great central plateau is the chief characteristic feature of Spain. The country is well watered with navigable streams. Note the position of *Oporto*, *Lisbon*, *Valencia*, *Barcelona*, and *Gibraltar*. See pp. 281-284.

Map of the Empire of Alexander the Great, p. 47.—The plan of Alexander the Great (356-323 B. C.) was to Hellenize the East. To what extent he succeeded may be gathered by a glance at this map. His reign constitutes an important period in the history of mankind. Much of the civilization of Greece followed in the train of his armies; a road was opened to India, and the products of the Orient were introduced into Europe.

Map of the Roman Empire (Time of Julius Caesar), p. 47.—In power, extent, and solidity the Roman Empire was the most remarkable creation of antiquity, and its influence on the world has exceeded that of any other empire. Rome spread civilization among the barbarian tribes of northern and central Europe. Wherever they went, the Roman armies built magnificent

roads, which even to-day are among the finest in Europe. The landing of Julius Cæsar in Britain (55 B. C.) is known to every schoolboy. Many of the modern names are suggested by the ancient Latin names on the map. *Gallia* or *Gaul* was the old name for the territory of which modern France forms a part.

Map of the Roman Empire in the Fifth Century, p. 47.—In 376 A. D. a tribe of Goths were permitted by the Roman Emperor Valens to settle in Thrace, south of the Danube. This was the first crevice in the great wall of defence. Exactly a century after this fatal mistake, Rome fell (476). The overthrow of the Western Empire by the Teutonic invaders marks the beginning of the Dark Ages. When the barbarian flood swept away the landmarks of the Roman Empire, all was in confusion for a century or more; but then were laid the foundations of the map of modern Europe. Note the distribution of the various tribes from which the chief nations have sprung.

Map of the Empire of Charlemagne, p. 47.—Charlemagne, or Charles the Great, King of the Franks and subsequently Emperor of the West, waged four great wars: against the Saxons; against the Lombards of Italy; against the Saracens in Spain; and against the Avars of Hungary. His empire included France, most of Catalonia, Navarre, and Aragon, the Netherlands, Germany as far as the Elbe, Saale, and Eider, Upper and Middle Italy, Istria, and a part of Slavonia. Charlemagne divided his empire among his three sons: Charles received Germany; Louis, Aquitaine; and Pepin, Italy. See *France*, p. 262, and *Germany*, p. 267.

Map of Ancient Greece, p. 48.—Ancient Greece was not a single country; it was divided into a number of independent states or territories (Thessaly, Epirus, Attica, Corinth, etc.). *Athens*, the capital of Attica and the chief town of the Ionic tribe, was the leading democratic state. *Sparta* or *Lacedæmon*, the chief town of Laconia and of the Doric tribe, was the leading aristocratic state. The Greeks called one another Hellenes; all other nations they called barbarians, that is, "The unintelligible folk," because they could not understand their speech. *Macedonia* and *Thrace* were regarded as outside the Hellenic pale till Philip II. of Macedonia (359-336 B. C.) brought the Greek states by war and diplomacy to recognize his leadership.

Physical Map of Africa, p. 49.—On consulting the colour scale it will be noticed that the proportion of land below 600 feet is very small, the slope upward from the coast being almost everywhere rapid. The most general description of the relief of Africa is that it consists of a vast table-land with a warped-up rim.

Looking at the isotherms for July (northern summer), the abnormally high temperatures (over 94°F.) indicated in the Sahara and near the shores of the Red Sea are noticed. The way in which the 80° and 88° isotherms follow the trend of the coast should be noticed, the temperature rising rapidly from sea to land. In the southern part of the continent there is a contrast between the east and west coasts. This is due to the relatively cold Benguela current, which pushes the isotherms on the west coast toward the equator. In South Africa the highest temperature does not approach 94°F., for the breadth of the continent is much less than in the north. The effect of the Benguela current is even more marked at this season, as shown by the steep temperature gradient westward. See pp. 299-300.

Political Map of Africa, p. 49.—The relative importance of the colonial possessions of the European powers cannot be measured by area alone; in many cases, as shown by comparison with the economic map, much of the land is unproductive, or it may be difficult of access. Thus, the vast areas controlled by France include much of the Sahara, and the very inaccessible basin of the Shari River.

For actual European settlement, as opposed to mere exploitation, the extra-tropical portions of Africa are most favourable. In the south practically the whole of these lands are British, while in the north the French have Algeria and Tunis. The railway system of Africa is still in its infancy. There is as yet no trans-continental railway, for the volume of trade with the interior does not warrant so heavy an expenditure of capital. Comparison with the economic map shows the influence of rich mineral deposits upon the development of railways. For example, a line was constructed from Cape Town to the Kimberley diamond fields, thence to the Rhodesian goldfields, and thence by the Victoria Falls to the Katanga copper mines in Belgian Congo. *Johannesburg*, with the famous Rand gold mines, is the centre of a radiating railway system giving direct access to four seaports, Cape Town, Port Elizabeth, Durban, and Lourenço Marques.

The British railway to Khartoum was built to obtain effective military control over the Egyptian Sudan. It is now being extended into promising agricultural districts, and supplements the interrupted navigation of the Nile. The line from Berber to Port Sudan gives the region direct access to the sea, and this route is convenient also for African pilgrims to Mecca. See pp. 299-304.

Climate Map of Africa (May-October), p. 50.—During the northern summer the belt of highest temperature lies to the north of the equator, and hence the low-pressure belt occupies a similar position. A deep depression over Asia causes the pressure gradient in northeast Africa to fall from west to east, with the result that northwesterly winds prevail over the Lower Nile and Red Sea areas.

In northwest Africa the pressure falls toward the Sahara and the northeast trade winds prevail.

The greater part of extra-tropical South Africa lies in the high-pressure belt normally to be found about 30° N. and S. of the equator. From the southern margin of this belt the pressure falls steadily over the Southern Ocean, and the winds blow from a northwesterly to westerly direction. In this westerly wind belt cyclonic depressions frequently pass eastward.

When comparing the pressure and winds with the rainfall, it must be remembered that the former show July conditions only, while the latter is the total for a period of six months, during which the low-pressure belt moves northward to the position shown and then southward again.

Reviewing the two maps, the seasonal rainfall of Africa may be summed up as follows: On and near the equator is a region wet at all seasons; north and south of this lie regions with a rainy season in the summer months, followed by a dry season; beyond these again are regions with no wet season, while at the extremities of the continent are regions with rainy winters and relatively dry summers. See "Climate" under *Africa*, p. 300.

Climate Map of Africa (November-April), p. 51.—The heat belt is now in the southern hemisphere, and the low-pressure belt, with its convectional currents and heavy rains is here also. Northeasterly winds blow along the

east coast as far as 20° S., while the southeast trades bring rain to southeast Africa, leaving the southwest coastal belt dry. In West Africa, between 10° N. and S., the southeast trades are drawn landward as southwesterly rain-bearing winds.

Across the Sahara stretches the normal relatively high-pressure belt, from the southern margin of which blow the northeast trades. The lands to the north of the Sahara lie in the belt of westerly winds and cyclones, and so are having a rainy winter season.

Vegetation Map of Africa, p. 52.—In the absence of any very marked variations of temperature the vegetation of Africa is mainly determined by the seasonal and mean annual rainfall.

In the equatorial regions of heavy and practically continuous rainfall a dense evergreen forest growth is found. In the regions with a marked season of drought a summer vegetation of tall grasses predominates; these are the tropical grasslands or savannas. The high-lying level regions (above 4,000 feet) of the southern and eastern table-lands are practically treeless, while on the steep slopes exposed to wet winds temperate forests are found.

The South African veldt forms a temperate grassland, for the palms and other trees typical of the tropical grasslands are absent. A temperate vegetation is found too in lofty Abyssinia. The great swamps which surround the shallow lakes on the table-land should be noticed, and also those on the White Nile and Bahr-el-Ghazal, which give rise to the "sudd," masses of floating vegetation which seriously impede navigation. The contrasts in vegetation between the parts of East Africa north and south of the equator may be compared with the similar contrasts in climate. See under *Africa*, p. 300.

Economic Map of Africa, p. 53.—Two points to be noticed are the absence of industrial districts in Africa (contrast southern Europe and Britain) and the existence of large areas, which, while not incapable of production, are as yet unexploited, and yield no commercial products.

Of the chief bases of industry, coal and iron, the former is found in considerable quantities in *British South Africa*, while the latter is of great importance in *Algeria*, whence it is exported to France. All the coal fields are at a distance from the sea; the most conveniently placed are the Natal coal fields, connected by rail with Durban, and the Transvaal coal fields near the gold-mining districts. Water-power (e. g., the Victoria Falls) is available in abundance.

In the Mediterranean region of North Africa the typical products, wheat, barley, wine, and olives are found, while wheat and wine are also important in the Cape region. To these may be added fruits, which are grown in both areas. See under *Africa*, p. 300.

Population Map of Africa, p. 54.—Africa has an average density of only thirteen persons to the square mile. Not only the deserts but vast areas covered with a luxuriant vegetation are scarcely inhabited.

The Nile Valley alone can show such a dense grouping as is found (outside the large towns) in southeastern Pennsylvania. In the Nile delta, too, are found four out of the nineteen African towns with over 50,000 inhabitants. The population of the Nile Valley steadily decreases with the distance from the Mediterranean Sea, but in Uganda on the shores of Victoria Nyanza there is again an increase.

The better-watered portions of the "Mediterranean" region of northwest Africa are well peopled, while in the similar "Cape" region a considerable population is grouped about Cape Town. The southeastern coastal terraces support a relatively large agricultural and pastoral population, of whom only a small proportion are Europeans.

Of great interest is the large native population of Upper and Lower Nigeria, where no less than eight towns have over 50,000 inhabitants. It should be noted that both equatorial forest and tropical grasslands are included in this area, a fact which suggests that other regions bearing a similar vegetation could support far more people than at present.

Maps of Africa, pp. 55, 56.—These two maps show the political divisions of Africa in greater detail than the map on page 49 (see above). The "scramble for Africa" is strikingly illustrated. These maps should be studied in connection with the text. Note the inset map showing the delta of the Nile. German East Africa is not likely to be restored to Germany, so that the British have at last acquired an "all red" route from the Cape to the Mediterranean. See pp. 299-304.

Physical Map of Asia, p. 57.—The most striking physical divisions are four in number: (1) A great triangular northern plain, with its base along the Arctic Ocean and its apex in Turan. (2) A belt of mountains which can be traced from the Mediterranean shores right across the continent; the belt contracts to a knot at the Pamirs. (3) Two table-lands in the south, separated from the mountains by alluvial plains. (4) The mountainous peninsulas and festoons of islands, from Kamcharka to Sumatra, which prolong the continent eastward and form the true seaboard, overlooking the Pacific deeps.

The map appears to be a complicated one owing to the extraordinarily rapid fall of temperature from south to north in eastern Asia, which causes the isotherms to lie very close together. A reference to the winter climate map shows that this is due to the strong and piercingly cold winds which blow down from the Siberian Plain and Mongolia. See pp. 313-319.

Political Map of Asia, p. 57.—From this map, side by side with the relief map, it will be seen that broadly speaking *Russia* has been gradually extended to include the whole of the northern plains; the *Chinese* have taken over the government of the central plateaus and basins.

The most complete railway system is that of *British India*. The greatest of the Russian railways is that across the Northern Plain from Moscow to Vladivostok. Very great difficulty was experienced in constructing the line around the precipitous southern shore of Lake Baikal. In Western Asia is the *Bardad railway*, which is planned to run from Smyrna to Bagdad and thence to the Persian Gulf. A second railway is being constructed to take the pilgrims to Mecca. It already runs from Aleppo, through Damascus, as far as Medina. Other railways worth noticing are the Japanese system, and the Dutch railway in Java. See pp. 314-319.

Climate Map of Asia (Summer), p. 58.—During this season the land is relatively warmer than the sea, and the pressure is therefore lower over the land. Hence the chief winds are the in-blowing summer monsoons. The winds are deflected and blow obliquely instead of directly inland, making an acute angle with the isobars. The highest temperature is found in the Indus Valley, which is one of the hottest places in the world. See "Climate" in the *Introduction*, pp. xi-xiii, also under *Asia*, p. 314.

Climate Map of Asia (Winter), p. 59.—In winter the tropical lands are relatively cooler than the seas, while in high latitudes the lands are intensely cold. Hence the pressure is highest over the land, and the pressure gradient is steepest, making the winds strongest, outside the tropics. Over the

greater part of *India* there is a light northeast monsoon, with westerly winds down the Ganges valley. It is interesting to note that at both seasons the general set of the winds of the Euphrates and Tigris valleys is down-stream. See p. 314.

Vegetation Map of Asia, p. 60.—In Asia there are examples of all the chief types of vegetation to be found upon the globe. In southern *Japan* and central *China*, where the winters are no longer cold, sub-tropical trees and shrubs, such as the magnolia and camellia, appear, and the broad-leaved forests are largely evergreen. Well-wooded grasslands (jungle) are found in *India* and *Farther India*; but wherever the rains are unusually abundant (over 60 inches) dense forests are found, as, for example, in *Annam*, *Burma*, *Assam*, and on the *Western Ghats* of India. In western Asia the vegetation bears out the statement that there is no real separateness between Europe and Asia, for the various belts all extend into Europe. See p. 314.

Economic Map of Asia, p. 61.—The olive, vine, and mulberry are found in *Asia Minor* and *Cyprus*; these are typical Mediterranean products. Tobacco, too, of good quality, is grown near *Smyrna* and in *Syria*. Of the highly productive regions, *India*, *China*, and *Japan* are tropical or subtropical monsoon lands; while *Java* has the equatorial type of climate. Wheat is grown in western *Siberia*, and promises to be an important crop in *Manchuria* also. See "Vegetable Products" and "Minerals" under *Asia*, p. 314.

Population Map of Asia, p. 62.—A reference to the vegetation map shows that much of the almost uninhabited part of Asia is of the semi-desert type, capable only of supporting nomadic pastoral peoples whose numbers could never become great. Within these regions there are, however, tracts of land that can be irrigated. Railways link up this cultivated area with Russia. Many naturally productive regions of temperate Asia remain undeveloped because of difficulty of access. In *Siberia* and *Manchuria* it is noticeable how the population groups itself about the railways. In *Burma*, *Siam*, and *India* the densest population is found along the river valleys.

Map of Modern Palestine, p. 63.—The build is simple: (1) The plateaus of eastern and western Palestine; (2) the Jordan Valley, a deep longitudinal depression between these two plateaus, reaching in the Bahr Lut (Dead Sea) nearly 1,300 feet below sea-level; (3) the Maritime Plain, between the Mediterranean and the Western Highlands; (4) the Valley of Jezreel, cutting the Western Highlands into two unequal portions. Note the position of *Acre*, *Jaffa* or *Yafa*, and *El Kuds* (*Jerusalem*). See p. 315.

Map of Arabia and the Kingdom of Hejaz, p. 64.—Arabia is an irregular parallelogram, with a short coast line and a simple form. The surface may be divided into three parts: (1) a central plateau; (2) a desert ring; and (3) coast ranges on the west, south, and southeast edges of the peninsula. Arabia is one of the most thinly peopled countries in the world. The *Kingdom of Hejaz* on the west is the most important region in Arabia; it is the newest kingdom in the world. Note the railway to *Medina*, also the positions of *Mecca*, *Jedda*, and *Aden*. See p. 315.

Map of Persia, Afghanistan, and Baluchistan, p. 65.—Persia is the western and larger half of the great Plateau of Iran; it is encircled by high mountain ranges. Afghanistan and Baluchistan form the eastern section of the same plateau. Afghanistan is the more mountainous, and is of importance to Great Britain as it commands the plains of British India. Note the position of *Teheran*, *Bushire*, *Kabul*, *Quetta* (an important British military station), and *Kandahar*. See pp. 315, 319.

Map of India, p. 66.—India has four highland systems (the *Himalayas*, the *Vindhya*s, dividing the Gangetic basin from the Deccan, and the *Western* and *Eastern Ghats*), one vast plain (the *Indo-Gangetic Plain*), and one vast plateau (the *Deccan*). This map should be compared with the Physical, Climate, Vegetation, Economic, and Population Maps of Asia. Note the position of *Bombay*, with its magnificent harbour; *Madras*, *Calcutta*, and *Delhi*. *Colombo* in Ceylon is an important port of call for vessels to the Far East and Australia. See pp. 316-318.

Map of Burma, Siam, and French Indo-China, p. 67.—This "peninsula of peninsulas" lies within the torrid zone. Its population is relatively much less dense than that of India or China—the other monsoon countries. *Singapore* is the most important port of call on the way to the Far East. Note its commanding position. *Siam* contains the whole basin of the Menam and part of the valley of the Mekong. See pp. 318-319.

Map of the Philippine Islands, p. 68.—The Philippine Islands form part of the true Pacific border of Asia. They are tropical islands with a high temperature and abundant rainfall throughout the year; most of them are mountainous and intensely volcanic. *Manila*, the capital, is protected by *Cavite* on Manila Bay. It was taken by Admiral Dewey for the United States in June, 1898. See p. 340.

Map of Japan, p. 69.—The islands of Japan are very mountainous and volcanic. The coast line is very long, and in many parts is deeply indented. The coasts of the Inland Sea resemble those of Norway with an Italian sky above them, and with the vegetation of the Orient. Japan has many points in common with Great Britain: both are insular empires; both are well situated for commerce; both have a higher temperature and fewer extremes in climate than the countries in the same latitude on the respective mainlands off which they lie; each is warmed by a warm ocean current—Great Britain by the Gulf Stream, Japan by the Japan Current (*Kuro-Siwo*); London and Tokyo are both aggregates of towns and villages—the former "a wilderness of bricks and mortar," the latter "a wilderness of bamboo and paper." The expansion of Japan on the Chinese mainland should be noticed. *Chosen* is the Japanese name for *Korea*. Note the Japanese railway traversing *Manchuria*; also the position of *Tokyo*, *Yokohama*, *Kobe*, *Nagasaki*,

Shimonoseki, *Chemulpo*, *Mukden*, *Harbin*, and *Kiauchau* (taken from Germany). See pp. 316-317.

Map of China, p. 70.—The Republic of China is for the most part mountainous. It has a long coast line. Notice the *Great Wall of China* dividing China proper from Mongolia. The wall, "like a huge snake turned to stone," winds over the crests of mountains, down deep gorges, and over lofty plateaus. The pressure of Russia in the north and northeast, and of Japan in the east should be noticed; take particular note of *Manchuria*. Note the position of *Peking*, *Shanghai*, *Canton*, *Formosa* (Japanese), and *Hongkong* (British). See pp. 309-312, 316.

Physical Map of Australasia, p. 71.—The continent of Australia has many points in common with Africa: both are compact in shape, with their highest ranges of mountains on the eastern edge, and the highest peaks in the south-east; both have extensive deserts in the interior; in both the volume of water in their longest rivers—the Nile and the Murray—diminishes as they approach the sea; the east coasts of both are protected—the one by the Great Barrier Reef, the other by the island of Madagascar.

As regards temperature range, the maximum (over 30°) is found in the centre of the continent and over the plains of the middle Darling, while the minimum occurs in the belt within 10° of the equator, where the temperature varies but little from 80°. Elsewhere the range, although between different limits, approximates in amount to that in the British Isles. See pp. 321-322.

Political and Economic Map of Australasia, p. 71.—The railway network of Australia is most complete in the more densely peopled southeast, where the three capital cities, *Sydney*, *Melbourne*, and *Adelaide*, form important nodal points. In general the Australian railways first developed along lines at right angles to the coast, for they ran inland from the seaports to the mining centres. The table-land of the west is rich in gold, while the eastern highlands (including the detached portion in Tasmania) are rich in minerals. Of the coal areas the largest is the great seaboard field from Newcastle to Bulli. See pp. 319-323.

Vegetation Map of Australasia, p. 72.—The vegetation of Australia, viewed in its broader aspects, presents a very simple picture, and shows clearly the control exercised by seasonal rainfall distribution. Only along a very narrow belt, bordering the northern and northeastern coasts, are the monsoon rains sufficiently heavy and prolonged to support a dense forest growth. With the diminishing rainfall, the forest passes over into a more open grassy formation, with scattered patches of woodland, notably the belts of trees along the rivers and round the water pools. Still further inland this wooded grassland is replaced by a true savannah. See p. 321.

Population Map of Australasia, p. 73.—The moderately well-peopled area of southeastern Australia is the belt of land with over 20 inches of rain, this rain being distributed fairly well throughout the year. When the tropic is passed, however, the population belt becomes markedly narrower, and finally dwindles away. The arid and semi-arid scrub-lands are practically unpeopled, save in mining areas such as those of Western Australia, where all necessities are brought from a long distance. In New Zealand there are large areas of mountain land unsuited for close settlement, but the plains are well occupied.

Physical Map of Pacific Ocean, p. 75.—This map brings out the shape of the ocean, which narrows northward until it is almost landlocked, while southward, too, the coasts of New Zealand and South America approach one another. The opposite margins differ very markedly, the American coasts being relatively unbroken, except to a minor degree by the fiords and associated islands in higher latitudes. On the Asiatic side, great complexity is the rule; a series of island loops and submarine ridges, traceable from New Zealand to the Aleutian Islands, faces the open ocean, while behind this chain is a corresponding series of almost land-girt seas, the home of the Chinese and Malay trader. The floor of the Pacific is on the whole remarkably level, abrupt slopes (shown by crowded isobars) being confined to the margins. Right across the centre of the North Pacific a volcanic ridge runs from northwest to southeast, the loftiest peaks and the waste from them building the Hawaiian group.

Map of North Pacific Ocean, pp. 76-77.—This map is interesting as showing the United States and all the insular dependencies. Note the various steamship routes, with the length of passage indicated. The importance of *Honolulu* as a halting-place between American and Australasian and Japanese ports will be observed. As yet there is no direct line to the Philippine Islands, the American vessels going by way of Hongkong. The great saving of time and distance effected by use of the Panama Canal is clearly demonstrated. The various submarine cables show in which direction the greater interests of America lie.

Map of Hawaii, pp. 78-79.—The Hawaiian group has been described as "an earthly Paradise, washed by the soft blue and sunny waters of the Pacific, and breathed on by mild and balmy zephyrs." The island of Hawaii is full of volcanoes, the cones of Mauna Loa and Mauna Kea soaring to close upon 14,000 feet. The islands rise abruptly from deep water; the coasts are steep and regular, with very few openings. The inset shows the distances between Hawaii and the principal ports.

Isochronic Charts, p. 80.—These isochronic (Greek *isos*, equal, *chronos*, time) charts graphically show the saving of time effected by the Panama Canal. The zones of colour show the number of days taken to reach certain points from New York before and after the completion of the Canal. These charts should be compared with the map of the North Pacific Ocean (pp. 76-77). See p. xxii.

Physical Map of North America, p. 81.—Any generalized section drawn across North America along a parallel of latitude shows the same essential

features. Beginning at the west, there is a sharp rise from the Pacific deeps to the lofty and broad Cordilleran belt. From the eastern foot of the Rocky Mountains a long gradual slope leads to a central depression, beyond which there is a gentle rise to the less imposing Eastern Highlands. Finally, a level stretch of coastal plain and continental shelf precedes a sudden drop to the abysses of the Atlantic Ocean. To the southward convergence of the two Highland belts the continent owes its shape—a triangle with a southward-pointing apex.

In the medial hollow much water has collected. In the northern part is the comparatively shallow sheet called Hudson Bay, farther south is the group of the five Great Lakes, next comes the Mississippi River, which in turn empties itself into the deep Gulf of Mexico. Roughly parallel to the shore of Hudson Bay and to one another are two more great water lines. The first includes the lower Mackenzie River, a long festoon of lakes from the Great Bear to Ontario, and the St. Lawrence River; the second is formed by the rivers Missouri and Ohio. The latter line marks roughly the greatest extension of the continental ice-sheet during the glacial periods, while the former probably shows a halting place of the edge of the sheet during a period of retreat. Beyond the Appalachians the ice reached the latitude of New York, and throughout the once glaciated regions are such characteristic phenomena as innumerable lakes, great and small; rivers broken by falls and rapids; bare polished knolls and ridges, alternating with valleys and hollows filled with a deep and fertile deposit of till or boulder clay.

The depth of the *Great Lakes* may be attributed to a depression of this part of the continent, for the submarine contours show clearly that the St. Lawrence once entered the Atlantic just south of the Great Newfoundland Bank.

The great central Plains are so broad that, although they only gradually slope upward toward the west, they lie between 5,000 and 6,000 feet above the sea when the foot-hills of the Rockies are reached.

A remarkable feature of the *western highlands* is the long narrow trough, bordered by parallel ridges, which can be traced almost from end to end of its Pacific border. The outer most ridge is formed by the peninsula of Lower California and the Coast Ranges of the States of California, Oregon, and Washington, further north it is partially drowned, and appears as a series of islands, of which Vancouver and the Queen Charlotte group are typical. The parallel trough includes the Gulf of California, the Salton depression, the Californian Valley, a smaller valley (the Willamette) leading northward to the Columbia River, Puget Sound, and the series of sounds and straits separating the island ridge from the mainland. Forming the inner border of this trough are the Sierras Madre and Nevada, and the Cascade Mountains. It is important to notice that the Columbia River breaches both the Cascades and the Coast Ranges, while the combined Sacramento and St. Joaquin Rivers also make a water gap in the Coast Ranges. This gap has been entered by the sea, and so forms a deep and sheltered harbour, the only one for a hundred miles along this unbroken coast.

In the *West Indies* and *Central America* the main feature lines have a general west-east trend, the islands being the summits of partially submerged ridges. The two isthmuses, Tehuantepec and Panama also run from east to west. Thus to the first explorers climbing the Panama divide, the Pacific was the Southern Ocean.

Regions with a temperature above 72°F may be termed hot, and the Central America and West Indian regions will be found to be hot at all seasons. A region with a temperature below 32°F isotherm in winter should be carefully traced, and associated with such facts as the cessation of active plant life, the limiting of animal life, the need for shelter for domestic animals, the occurrence of precipitation in the form of snow, the freezing of fresh-water harbours and canals, and the disintegrating action of frost. Between 32° and 48° the temperature may be termed "cool" if it is summer, "mild" if it is winter, while temperature between 48° and 72° is "warm" to "very warm." In this way the more important districts may be described. For example, the Gulf Region with Florida has warm winters and hot summers; San Francisco is warm both in summer and winter, but the California valley behind it has a hot summer; New York has a hot summer, but a cold winter.

By tracing the course of the summer isotherm 64°F. the leading points as to the contrast between land and water surfaces can be well brought out, the influence of the Great Lakes being quite marked. The curving of isotherm 72° in harmony with the lake-shore may also be noticed.

The close crowding of the isotherms along the western margins shows how limited is the range of oceanic influence, even where onshore winds are found, in cases where mountain ranges run parallel to and near to the coast. The low temperatures found in the eastern parts of the continent north of latitude 40° should be associated with the prevailing northwesterly winds (see Winter Climate Map) which prolong continental influence seaward.

The temperature gradient along a meridian is noticeably steeper in winter than in summer, the extreme summer temperatures to be found on the map are 88° and 32°, i. e., a range of 56°, while the extreme winter temperatures are 72° and -40°, a range of 112°. The part of Greenland lying within the Arctic circle where the lowest temperature reading is given may be termed the Cold Pole, for the cold is more intense than at the North Pole. See pp. 330-331.

For physical features of *South America*, see pp. 328-330.

Political Maps of North America, pp. 82-83.—The *International Boundary* between Canada and the United States is interesting to trace. The broad Appalachian upland formed the original barrier between the Puritan settlers in New England and the French immigrants along the St. Lawrence River. To-day the actual boundary is the St. Lawrence watershed, but northern Maine is still a forested wilderness, barely peopled (see Population Map). At a point above the junction of the Ottawa and St. Lawrence rivers the latter becomes the boundary, for here access from the seaboard to the river and lakes is easy. Four of the Great Lakes are shared between the two countries, and from the northwest of Lake Superior a small river and chain of lakes is followed to Lake of the Woods. This was the scene of a curious geographical mistake. It was stated that the boundary should run to the northwest of the lake and thence follow parallel 49° N. Examination of the map shows that this parallel runs from the southwest corner of the lake.

Alaska is interesting as the first outside territory acquired by the United States, and it should be noticed that a long strip of Alaskan seaboard intervenes between parts of the Dominion and the sea. There is here no definite natural feature line or meridian that can be followed by the boundary, which was settled with difficulty by an International Commission, after a careful survey and mapping of a vast territory. See pp. 341-342.

Climate Map of North America (Summer), p. 84.—The map shows a belt of relatively low pressure (sometimes less than 29.8") stretching across the continent and oceans in high latitudes, but the high pressure belt (30.2" over the Pacific, 30.0" over the Atlantic) is separated into two anti-cyclones by a low pressure belt developed over the heated continental interior. This belt merges into the low pressure area over Central and South America.

The winds blow spirally out and round from the two high pressure areas.

Thus, southwesterly and westerly winds strike the British Columbian and Alaskan coasts, where there are considerable relief rains, and farther south the wind direction is northwesterly. From the southern margin of the Atlantic anti-cyclone the northeast trade winds blow toward the north equatorial "low." Over Mexico and Texas there are strong easterly winds, directed toward the continental depression, while over the Eastern United States and Eastern Canada the winds are southwesterly, and blow toward the low pressure belt of latitude 60°. All these winds are rain-bearing. It is noticeable that in the continental area of minimum pressure no condensation occurs. The exceedingly high temperature partly explains this, and the fact that the air reaching this region is largely exhausted of moisture. The marked "rain-shadow" thrown by the Cascades should be noticed, as also the relief rains of the Sierra Nevada. Conditions in the British Isles are closely comparable with those found in British Columbia in the same latitudes. See p. 333.

Climate Map of North America (Winter), p. 85.—This map shows the high pressure belt of lat. 30° weakly developed over the oceans, but expanding over the continent into a great anti-cyclone due to the intense cold of the interior. A ridge of high pressure separates two very marked low pressure areas, cyclonic in outline, the one over the North Atlantic and the other over the North Pacific. The equatorial "low" has moved southward with the declination of the sun.

Over the eastern United States there is a belt of relatively high pressure where the winds are light and variable, and this belt is frequently broken by cyclones from the Gulf which spread or travel over the region, giving to it cyclonic rains. The northeast trades cross the West Indies and Central America on their way to the equatorial low pressure belt of conventional rains which lies over South America. Only where forced upward by the contour of the land do they yield rain. The whole of the interior of the continent is dry, as are those parts of the western margin, south of Los Angeles, with directly off-shore winds.

A comparison of the two maps will bring out the following points. Along the west coast there is a belt extending as far south as Cape Blanco with abundant rains at all seasons, farther south (to San Francisco) a region with dry summer and heavy winter rains, followed by a third belt (to Los Angeles) with light winter rains only, and finally by a belt that is dry at all seasons. The interior basins and plateaus of the United States are always dry, as is the region round about the Arctic Ocean. The West Indies, eastern United States, and Atlantic margins of Canada have rain at all seasons, while the continental interior and Mexico have summer rains.

The waters frozen in winter should be carefully noted and compared with the map showing lines of communication. Comparison with the temperature map will help to explain why these waters are frozen, and it should be remembered that fresh water freezes more readily than salt, enclosed water than open, shallow water than deep.

Vegetation Map of North America, p. 86.—Before studying the vegetation map, one should clearly realize the two following facts. In the case of certain plant associations the transition from one to another is so gradual that no hard and fast line can be drawn between them. The northern coniferous forest, for example, passes imperceptibly into the Barren Grounds or tundras, the trees simply thinning out, and becoming more and more stunted and dwarfed. Southward, too, there is no definite boundary between coniferous and deciduous, or between deciduous and evergreen trees. Here, however, the fact that the different varieties of trees exist side by side can be shown by mingling patches of the particular tints which represent them. The second point is that, unless the map is to become unduly complicated, a single name, e. g. coniferous forest, must embrace woodlands which differ very much in aspect. Thus the drenching rains on the Pacific slopes produce there a luxuriant tree growth which includes such giants as the Douglas fir and California redwood; while the pines, firs, and spruces of the interior ranges, and those of Mexico and Central America are of ordinary stature.

Both January and July isotherms may be examined in connection with the limits of the tundra, where a constantly frozen subsoil inhibits tree growth. In Labrador there is a low summer temperature (under 48°F); round Hudson Bay the summer is warmer but the winter is much more severe (40° below freezing point), while farther west, with an even hotter summer, the winters are again more severe, and the precipitation lower.

The eastward extension of the rich prairies in the Illinois region calls for some further explanation. Factors that have probably helped the grasses to occupy the inter-stream areas at the expense of trees are the loose nature of the soil, the strong and bitter northwest winds, and the periodical fires started by the Indians. Southward the mild winters (over 40° F.), coupled with the ever-abundant rainfall, make a definite resting season unnecessary and many of the trees and undershrubs are evergreen. In southern Florida, where the winter temperature is 64° F., the evergreen trees have a tropical profusion.

The temperate grasslands vary greatly in the luxuriance and close growth of the grasses and other herbs, becoming gradually poorer from east to west, in which direction the rainfall diminishes, and from north to south, where, although the rainfall is the same, the intensity of insolation increases, so that evaporation is more rapid.

A large proportion of the broad-leaved forest area of the eastern lowlands has been cleared for agriculture. The upland forests of the Appalachians, however, still form a compact unbroken belt, for here only the floors of the broad longitudinal valleys have been transformed into arable land. Of the Cordilleran and Northern forests only the fringes have been cleared, and wherever they are readily accessible, especially where water transport and water power are available, lumbering is carried on upon a large scale; for example, along the Coast Ranges of the West and in the St. Lawrence basin. See p. 333.

Economic Map of North America, p. 87.—The areas marked unproductive include the snowfields, tundra, high mountain belts, and tree deserts; but the remaining productive areas differ widely in value. A comparative estimate of their value is obtained by noting the relative density of the symbols denoting agricultural and animal products, but this estimate is only a rough one owing to the principle upon which the map has been constructed. The importance of the products mapped is measured by the present value of the output, and not by possibilities of future development. The productive capacity of the arid regions is being increased in two ways: first by the spread of improved methods of "dry-farming," which is extending the wheat area westward, and secondly the expenditure of large capital sums (chiefly by the United States Government) upon irrigation schemes. Since, too, for production on a large scale easy access to markets is all-important, many fertile tracts lie idle until the coming of the railroads; the new Grand Trunk Pacific Railway in Canada, for example, has opened up fresh farming areas which only need the influx of capital and labour to become productive.

The climate demands of particular crops are well seen if a study is made of the sequence: wheat, maize, cotton, rice, sugar, cacao, the principal changes being the increase of summer heat, the longer duration of hot weather, the increase of rainfall and its more uniform distribution through the year. Of the crops named all but cacao are independent of the winter climate.

The best *wheat* districts are found in the belt of open grassland lying near to the northern and eastern forests, a belt which includes the fields of Saskatchewan, Manitoba, the Dakotas, Minnesota, Nebraska, and Kansas. Next in importance are the valleys of the Pacific border with plentiful winter rains, yet dry summers.

The chief demand of *tobacco* is for a peculiarly rich soil, and it is found over a wide range of latitude. The Virginia tobaccos are grown in the middle portion of the Atlantic Plain, and in the lower Ohio basin, which includes the famous blue-grass region of Kentucky. The large crop of the lower Connecticut Valley is not sent abroad. The tobaccos of the tropical area are used in cigar manufacture, the best Havana being obtained only from the west of Cuba.

The *fruit-growing regions* are of very diverse character. They include the apple orchards of Nova Scotia and New Brunswick, the oranges and pine-apples of sub-tropical Florida, the bananas of the West Indies and Central America, and the stone fruit ripening in the summer-drought regions of California, where, too, the raisins, almonds, vines, and olives emphasize the "Mediterranean" character. In southern British Columbia and Washington the deep sheltered valleys are so dry that fruit culture under irrigation is carried on, while the stone fruits and vines of the Lake Peninsula are made possible by the influence of the Great Lakes, which prevent any sudden or rapid variations in temperature.

Cattle are reared in the greatest numbers on the rich prairies, but they are found also on the large ranches of the far West, and in eastern Canada where there is a notable cheese industry. Sheep do best in the semi-arid regions, and are most numerous in Montana. The feeding of maize and of cottonseed cake to stock should be noted, and, in connection with the great industrial centres, the growth of market gardening and of dairying in the neighbouring rural districts.

Turning to the *minerals*, the precious metals and copper are seen to be associated generally with the Cordillera, but the copper of Lake Superior is of first importance, as is also the iron of the same locality.

The relation of the coal fields to the sea, to the Great Lakes, to the iron workings, and to the railways should be noted. Where they occur in proximity to the mining centres of the West, as at Denver and Butte, refining and smelting are of importance. The absence of coal in California is compensated for by the water-power (transformed into electricity) which the perennial torrents from the Sierra Nevada supply, and also by the oil wells, petroleum being very widely used both in industry and in transport. In view of the growing importance of oil as a fuel the petroleum wells of Mexico should be noted. See p. 333.

Population Map of North America, p. 88.—This map shows that there still remains on our continent vast regions entirely uninhabited. They include the Barren Lands and the greater part of the forests of Canada and Alaska, together with the arid basins of the western United States. In the United States the majority of the people still live to the east of meridian 100°, and almost half of the total population is to be found within an area bounded by the Mississippi and Ohio rivers, the Great Lakes, and the Atlantic Ocean. Here there are facilities unrivalled elsewhere for the development of industry and commerce, and hence thirty-five out of a total of fifty towns with over 100,000 inhabitants are situated within this area. Just across the boundary the population of Canada is similarly concentrated in the Lake Peninsula and along the lower Ottawa and St. Lawrence rivers. But the recent growth of population here is not to be compared with that farther west.

Economic Map of Mexico, p. 89.—Cotton, rice, sugar cane, cacao, and tropical fruits are grown on the marginal lowlands; coffee and tobacco at a greater altitude; and wheat, maize, and temperate fruits where irrigation makes their cultivation possible on the semi-arid plateau. Hemp is grown in Yucatan while in the extreme south the forests yield mahogany and rubber. Silver, gold, and other minerals are mined. Note the oil-fields near Tampico. See pp. 333-334.

Political Map of Mexico, pp. 90-91.—Mexico is a high table-land, but-tressed on both sides by lofty mountain ranges and edged by low plains on both seas. The table-land goes down to the coast plains by a series of terraces. The south end of it is crossed by a zigzag line of volcanoes, which are among the loftiest in the world. Mexico is deficient in navigable waterways. The *Rio Grande* forms the natural boundary between Mexico and the United States from El Paso to the sea. The distribution of the towns should be studied in conjunction with the Economic Map. See p. 334.

Economic Map of the West Indies, p. 92.—*Cuba*, the most important island of the West Indies, is chiefly devoted to the growing of sugar cane and tobacco. *Jamaica* (British) and *Porto Rico* (United States) closely resemble each other in size, population, and products. In the island of *Haiti* coffee, cocoa, cotton, and tobacco are cultivated. Similar products characterize the remaining islands of the group. See p. 327.

Political Map of the West Indies, p. 93.—The *Greater Antilles* (*Cuba*, *Jamaica*, *Haiti*, and *Porto Rico*) are the remains of a folded mountain system in which the parallel chains run from west to east, a direction which is followed by some of the chains in Central America. The *Lesser Antilles*, a

chain of volcanic islands, make a loop between *Porto Rico* and *Trinidad*. The aborigines have almost disappeared on these islands, their place being taken by negroes and Europeans. The inset map of *Haiti* and the *Dominican Republic* gives a clear idea of the districts in which the United States troops have played an important part within recent years. Note the position of *Havana*, *Santiago de Cuba*, *Port au Prince*, *Santo Domingo*, *San Juan*, and the *Virgin Islands*. See p. 327.

Political Maps of Porto Rico and Cuba, pp. 94-95.—These two maps are on a larger scale, and should be compared with the Economic Map. For description see above.

Standard Time Map of Canada, p. 96.—In Canada six standards of time have been adopted since 1883; four of them coincide with the standards adopted by the United States, namely *Eastern*, *Central*, *Mountain*, and *Pacific*, corresponding severally to the mean local times of the 75th, 90th, 105th, and 120th meridians west from Greenwich, and being therefore five, six, seven, and eight hours slower than Greenwich time. There is another standard for the eastern provinces of Canada (four hours slower than Greenwich time) known as *Atlantic*; while on the extreme west there is the *Alaska* time (nine hours slower than Greenwich time). Towns and cities near the dividing lines adopt which of the two lines is the more suitable to railway or local requirements.

Political Maps of Canadian Provinces, pp. 97-112.—For description see under Canada, pp. 334-335.

Political Map of Central America, p. 113.—Central America is on the whole a mountainous region, the greatest altitudes being reached near the Pacific coast. The vegetation consists of forests of the equatorial types in the hot and wet regions, rich savannas on the uplands, and temperate forests on the higher mountain regions. The valleys and plains are very fertile. Note the *Canal Zone* across the isthmus of Panama. See pp. 326-327.

Map of Republic of Panama, pp. 114-115.—The Republic of Panama is divided into seven provinces, their boundaries representing those of old administrative districts; Panama, Colón, Coclé, Veraguas, Chiriquí, and Bocas del Toro. Along both the northern and southern shores are many inlets affording good anchorage for vessels engaged in coastwise trade. There are no lakes in Panama except the artificial ones in the Canal Zone. Except for a few swampy areas along the coasts the drainage of the country is excellent. About 150 streams flow to the Caribbean and more than 300 to the Pacific. The *Chagres River*, now known to all who have followed the building of the canal, has its origin in the wilderness of southeastern Panama, near the Pacific coast.

Two-thirds of the area of Panama is occupied by forests of valuable wood. The Atlantic side of the water-parting and the Darien region are the most densely covered portions of the country. The jungle on the Atlantic slope is so nearly impenetrable that enormous capital will be required to clear the land, a condition which has greatly retarded the development of the lumber industry. On the Pacific side, where the rainfall and humidity are less, the forest is more open and the timber growth smaller. Here are large districts suitable for fruit culture, wheat growing, and cattle raising. There are many localities which are suitable for bananas; others that seem to be specially adapted for tobacco culture; and others where cocoanut plantations would thrive. The present population is sparse, the roads and tracks poor, settlements scattered, while the majority of the people are lacking in energy and interest. See p. 327.

Map of the United States Canal Zone, pp. 116-117.—The Panama Canal does not cross the Isthmus from east to west, but as will be seen on the map, its general direction is from northwest to southeast, the Pacific entrance near Panama being about 22½ miles east of the Atlantic entrance near Colón. The Isthmus at the Canal Zone is about 40 miles wide and the entire length of the Canal, from deep water in the Atlantic to deep water in the Pacific, is about 50 miles. Of this length about 15 miles are at sea-level, seven miles at the Colón end and eight at the Panama end. The remainder consists of two elevated reaches, the longer of which—that between Gatun and Pedro Miguel locks—is about 32 miles in length and 85 feet above sea-level, while the shorter—between Pedro Miguel and Miraflores—is about two miles long and about 55 feet above sea-level. From Gatun for a distance of 24 miles the Canal follows roughly the channel of the Chagres River, and the greater part of this portion has been converted into Gatun Lake. The points of deepest excavation in the Canal are in *Gaillard Cut* (*Culebra Cut*), between Gold and Contractor's Hills.

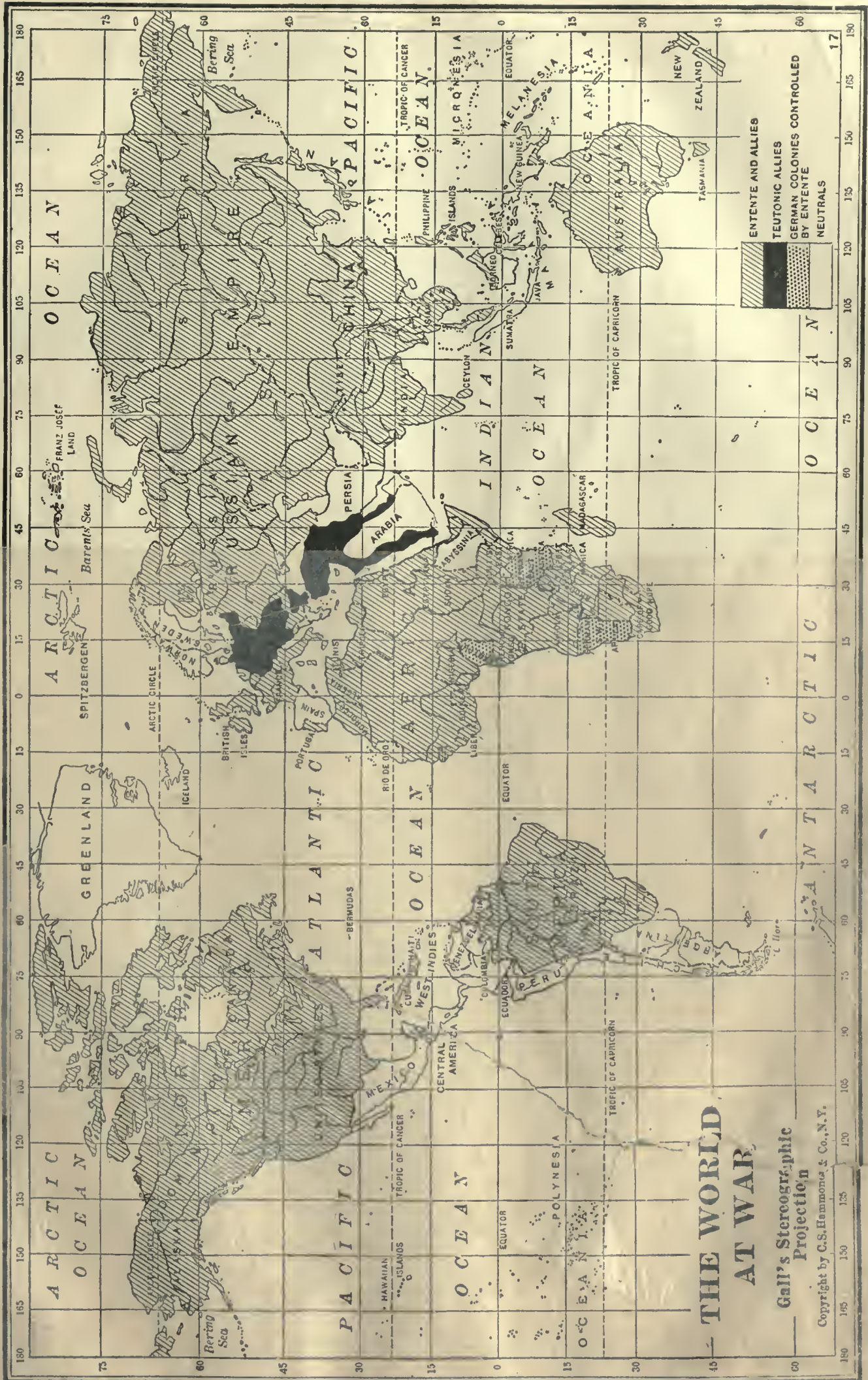
There are six double locks in the Canal; three pairs in flight at Gatun, with a combined lift of 85 feet; one pair at Pedro Miguel, with a lift of 30½ feet; and two pairs at Miraflores, with a combined lift of 54½ feet at mean tide. The usable dimensions of all are the same—a length of 1,000 feet and width of 110 feet. Each lock is a chamber, with walls and floor of concrete, and mitring gates at each end. See p. 340.

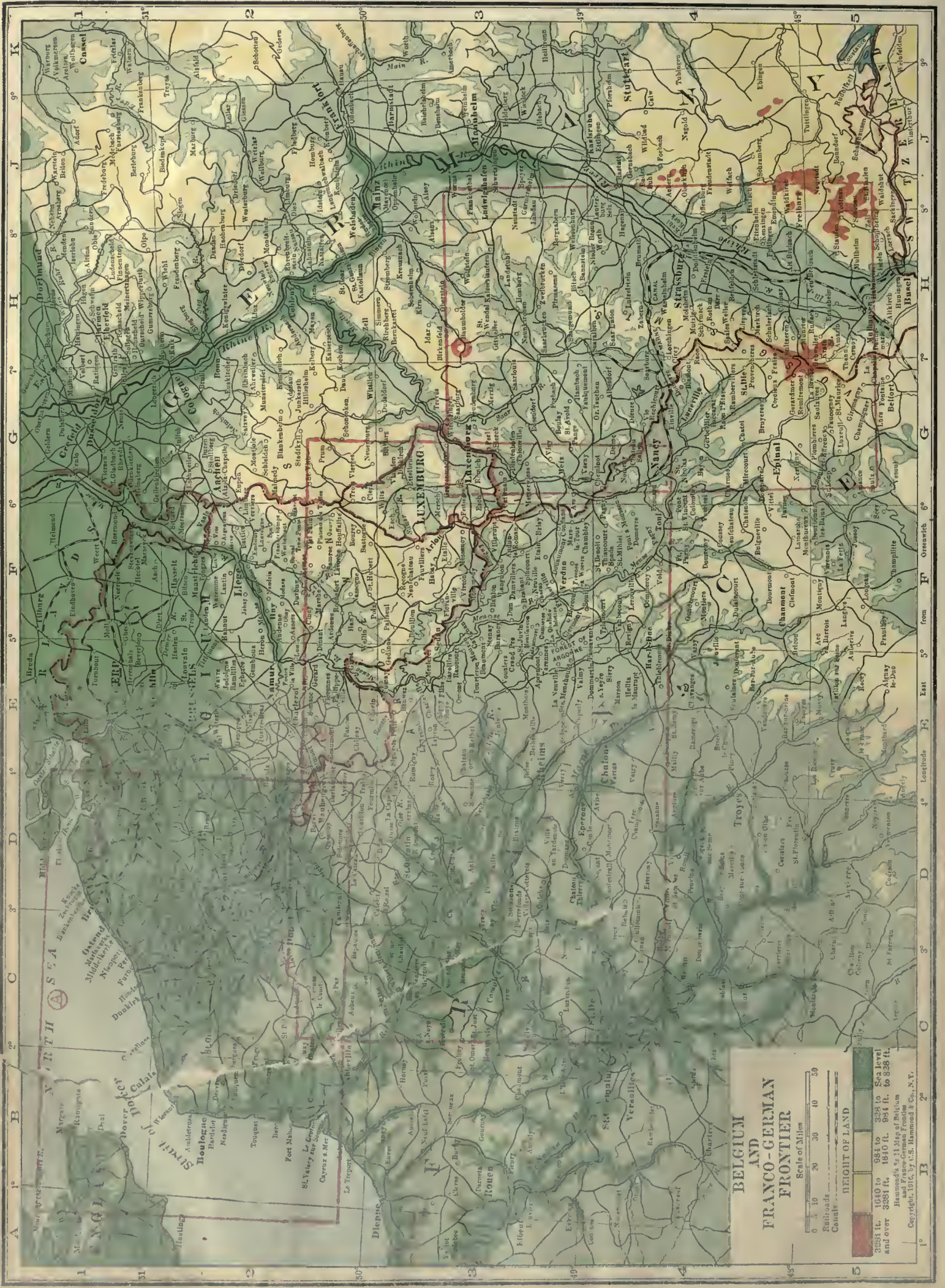
Maps, pp. 118-235.—The Synopses of the respective countries will be found a great help to an understanding of these maps. For various phrases of the geography of the *United States*, see above notes on the Physical, Political, Climate, Vegetation, Population, and Economic Maps of North America.

Transcontinental Automobile Tours.—The principal automobile routes are indicated on the various State maps. For an official description of *Transcontinental Automobile Tours*, see p. 240.

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BELGIUM AND FRANCO-GERMAN FRONTIER

Scale of Miles

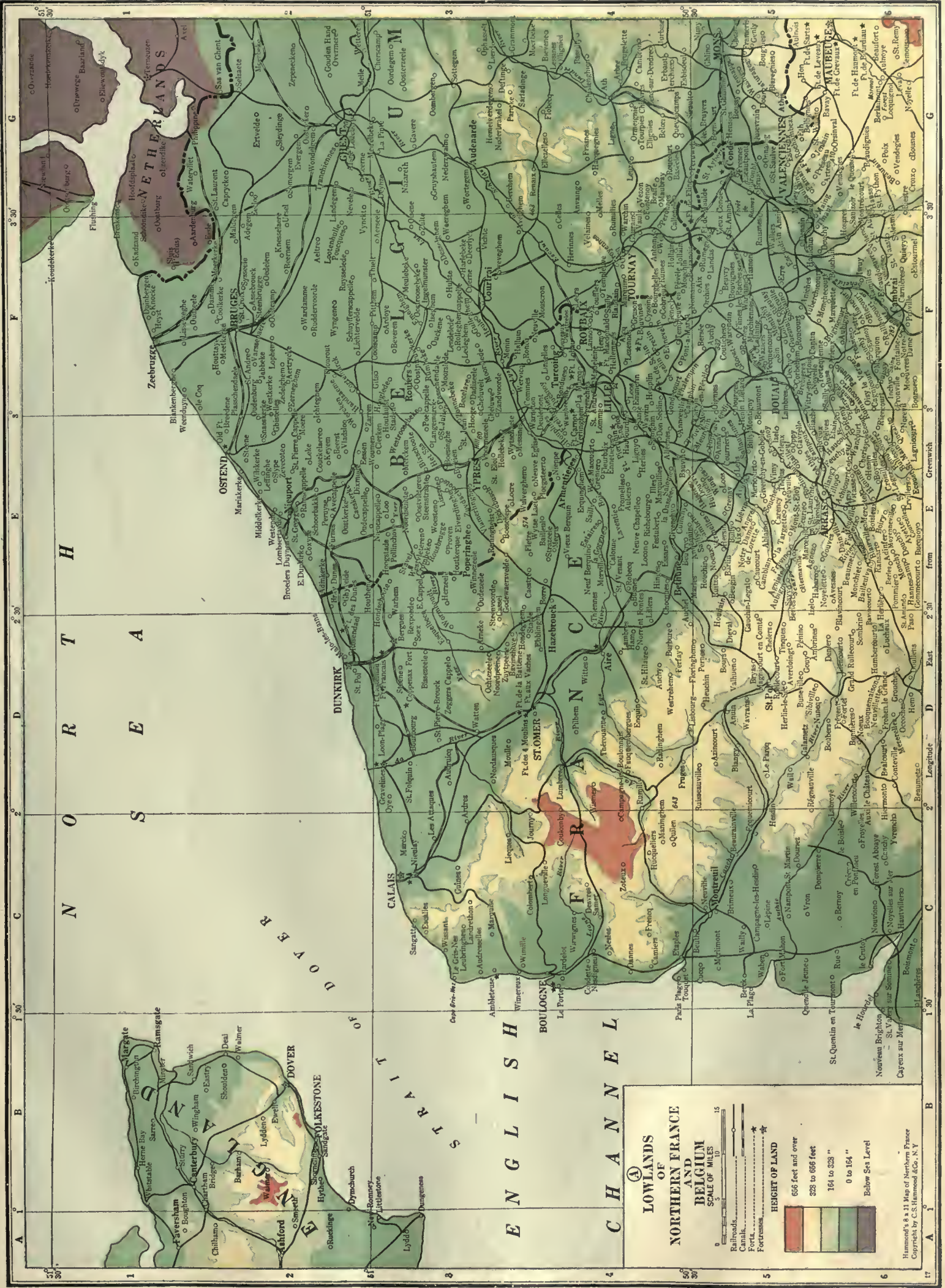
0	10	20	30	40	50
Scale of Feet					
0	1000	2000	3000	4000	5000

HEIGHT OF LAND

3281 ft. and over	1640 to 3281 ft.	984 to 1640 ft.	328 ft. to 984 ft.	Sea level and over
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RED LINES SHOW TERRITORY COVERED BY THE LARGE SCALE MAPS A, B AND C



LOWLANDS OF NORTHERN FRANCE AND BELGIUM
 SCALE OF MILES 15

HEIGHT OF LAND

656 feet and over
328 to 656 feet
164 to 328 "
0 to 164 "
Below Sea Level

Railroads
 Canals
 Forts
 Fortresses

Hammond's a 11 Map of Northern France
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COMPLETE INDEX OF NEW WAR MAPS

OF THE

WESTERN FRONT

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This compilation contains the names of all places shown on the accompanying maps. Locations are indicated by the index reference at the right. Map "A" contains the names of all places from A to D, and from 1 to 5. Map "B" contains the names of all places from D to M, and from 5 to 12. Map "C" contains the names of all places from M to R and from 8 to 16.

The names of the countries are shown by initials aa B—Belgium; F—France; G—Germany; L—Luxemburg.

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Ablancourt, F.J11	Anseremme, B.J 5	Aveluy, F.E 6	Beaulencourt, F.E 6	Beugnatre, F.E 6	Bouillon, B.K 7	Buhl, G.R12
Ablois, F.G10	Anthec, B.J 5	Avenay, F.H10	Beaumont, F.D 6	Beugneux, F.F10	Bouillonville, F.L11	Buire, F.E 7
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Achern, G.R12	Aothenay, F.G10	Aves le Comte, F.E 5	Beaumont, F.E 6	Beurig, G.N 8	Boulogne, F.C 4	Buisson, F.J11
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Alt Breisach, G. P14	Athys, F.H10	Bannstein, G. T11	Beningen, G.N10	Blanzay, F.G 9	Bray Dunas, F. E 2	Camières, F.C 4
Altenglan, G.O 8	Athus, B.L 8	Bantberville, F.K 9	Bensdorf, G.N11	Blaregnies, B.G 5	Braye, F.F 9	Camon, F.D 7
Altenhof, G.O14	Athus, B.L 8	Bapaume, F.E 6	Berehem, B.G 3	Blaudain, B.F 4	Braye, F.F 9	Campagne-les-Boulois, F.D 4
Altheim, G.O14	Attart, B.L 7	Bar, F.J 9	Berehem, L.M 8	Blavincourt, F.D 5	Bray-sur-Somme, F.E 7	Campagne-les-Hesdin, F.C 5
Altweiler, G.N10	Attichy, F.F 9	Baralle, F.J 9	Berck, F.C 5	Blavincourt, F.E 5	Brebieres, F.F 5	Campin, F.F 4
Altweiler, G.N10	Attigny, F.J 9	Baralle, F.J 9	Bergeres, F.H11	Bleid, B.L 8	Bredene, B.E 2	Canchy, F.C 6
Alzingen, L.M 8	Atton, F.M11	Barbary, F.E10	Bergheim, G.O14	Blercourt, F.F 8	Breidenbach, G. O10	Candor, F.E 8
Alzenbach, G.P16	Aubange, B.L 8	Barbouville, F. M12	Bergholtz, G.O15	Blercourt, F.K10	Bremenil, F.N12	Canny, F.E 8
Amagne, F.E 5	Aubeneuil, F.E 5	Barby, F.H 8	Bergnes, F.D 3	Blesmes, F.F10	Brenelle, F.G 9	Cantigny, F.E 8
Amance, F.M11	Aubenton, F.I 7	Bar-le-Duc, F.K11	Bergin, G.H 9	Bleybach, G.O10	Bretteuil, F.D 8	Cantigny, F.E 8
Amance, F.M12	Auberchicourt, F. F 5	Barleux, F.E 7	Bergin, G.H 9	Briegastel, G.O10	Bretten, G.O16	Cantigny, F.E 8
Amanweiler, G. M10	Auberive, F.H10	Barlin, F.E 5	Berlaimont, F.G 6	Briesbrucken, G. O10	Breuil, F.E 8	Cappey, G.N10
Ambackourt, F. M13	Aubers, F.E 4	Barly, F.E 5	Berlancourt, F.G 7	Briesdalheim, G. O10	Breuil, F.E 8	Caprycke, B.G 2
Amberloup, B.K 6	Aubigny, F.E 5	Baron, F.E10	Berles, F.D 5	Bligny, F.G10	Briey, F.L 9	Carency, F.E 5
Ambieville, F. M15	Aubigny, F.F 5	Baroncourt, F.L 9	Berles, F.E 5	Blignacourt, F.E 9	Briey, F.L 9	Carency, F.E 5
Ambly, F.F 9	Auchel, F.D 4	Baronville, B.J 6	Berles, F.E 6	Blittersdorf, G.O10	Briey, F.L 9	Carnoy, F.E 7
Ambletense, F.C 3	Auchonvillers, F. D 6	Baronville, G.N11	Berncourt, F.L11	Bocquoy, F.E 6	Brillon, F.K12	Carnoy, F.E 7
Amblimont, F.K 8	Auchy, F.D 4	Barr, G.O13	Bernisart, B.G 5	Boeschepe, F.E 3	Brilleux, F.C 5	Carvin, F.E 5
Ambonnay, F.H10	Auchy, F.F 5	Barricourt, F.K 9	Bernoy, F.C 16	Boesinghe, B.E 3	Brin, F.M11	Cassel, F.E 3
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Amel, F.L 9	Audresselles, F.C 3	Barvaux, B.K 5	Berny, F.E 7	Boinville, F.L10	Brizeux, F.G 9	Catillon, F.G 6
Amiens, F.D 7	Audruicq, F.D 3	Basécles, B.G 4	Berriex, F.G 9	Bois Grenier, F. E 4	Brizeux, F.G 9	Catillon, F.G 6
Amifontaine, F.G 9	Audun le-Roman, F.L 9	Bassilly, B.G 4	Berru, F.H 9	Boisieux, F.E 6	Broers Duyenen, F.E 2	Catillon, F.G 6
Ammerweiser, G. O14	Auge, F.H 7	Bastogne, B.L 6	Berry Au Ba, F. G 9	Boismont, F.C 6	Bronne, F.I11	Catillon, F.G 6
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Amy, F.E 8	Aulnois, F.G 5	Battwetter, G.O 9	Berthelming, G. N11	Boncourt, F.G 8	Brouchy, F.F 8	Catillon, F.G 6
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Ancy, G.M10	Aulnois, F.G 8	Baudoucourt, F. M15	Bertogne, B.L 6	Boncourt, F.L11	Brouchy, F.F 8	Catillon, F.G 6
Andechy, F.E 8	Aulnois, G.M11	Baudoucourt, F. M15	Bertrichamps, F. N13	Boncourt, F.L11	Brouchy, F.F 8	Catillon, F.G 6
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Annav, F.E 5	Autreuche, F.J 9	Baudoucourt, F. M15	Bertrichamps, F. N13	Boncourt, F.L11	Brouchy, F.F 8	Catillon, F.G 6
Annequin, F.E 4	Auty, F.J 9	Baudoucourt, F. M15	Bertrichamps, F. N13	Boncourt, F.L11	Brouchy, F.F 8	Catillon, F.G 6
Annet, F.E11	Auve, F.J10	Baudoucourt, F. M15	Bertrichamps, F. N13	Boncourt, F.L11	Brouchy, F.F 8	Catillon, F.G 6
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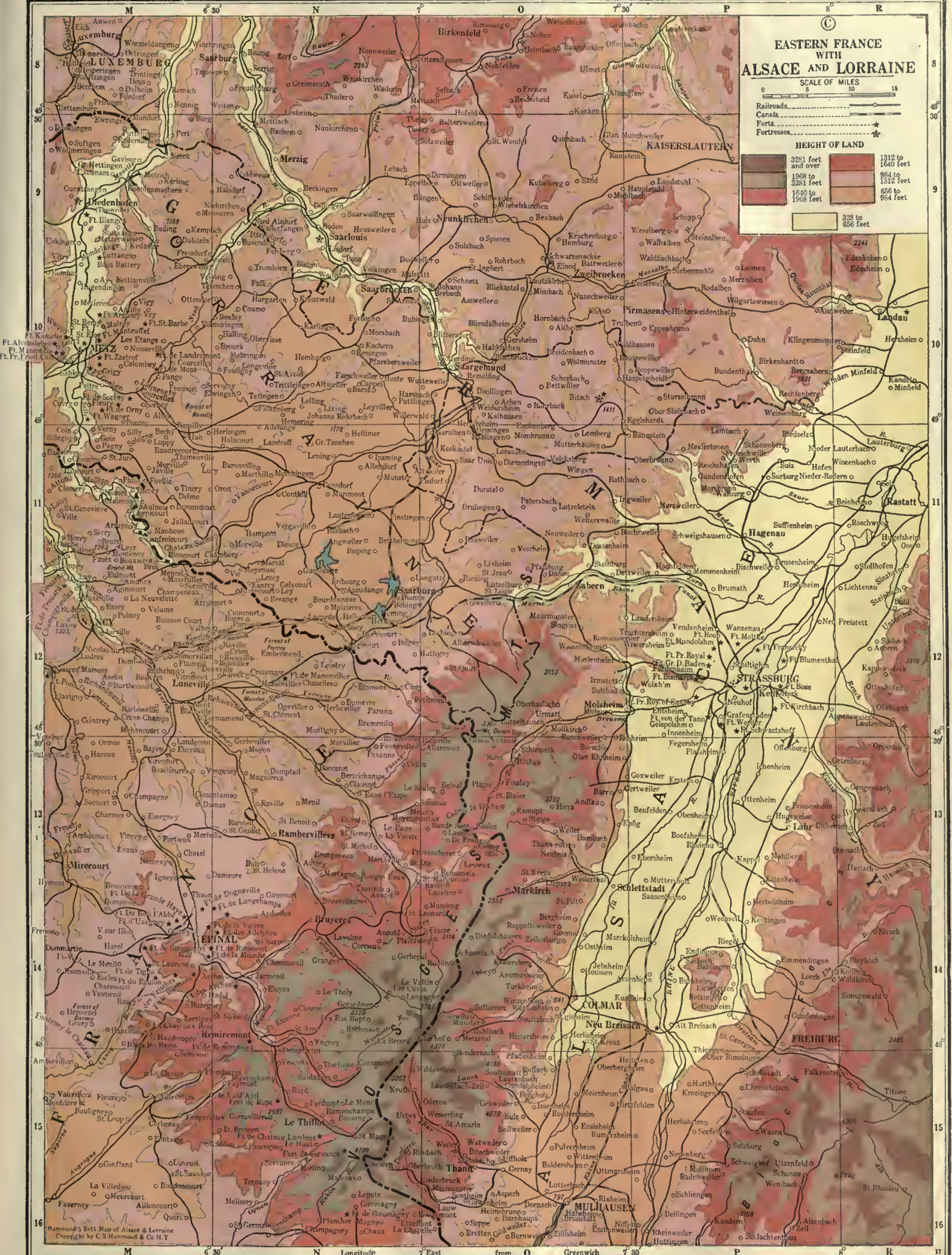


EASTERN FRANCE WITH ALSACE AND LORRAINE

SCALE OF MILES
0 5 10 15

Railroads ————
Canals ————
Forts ————
Fortresses ————

HEIGHT OF LAND



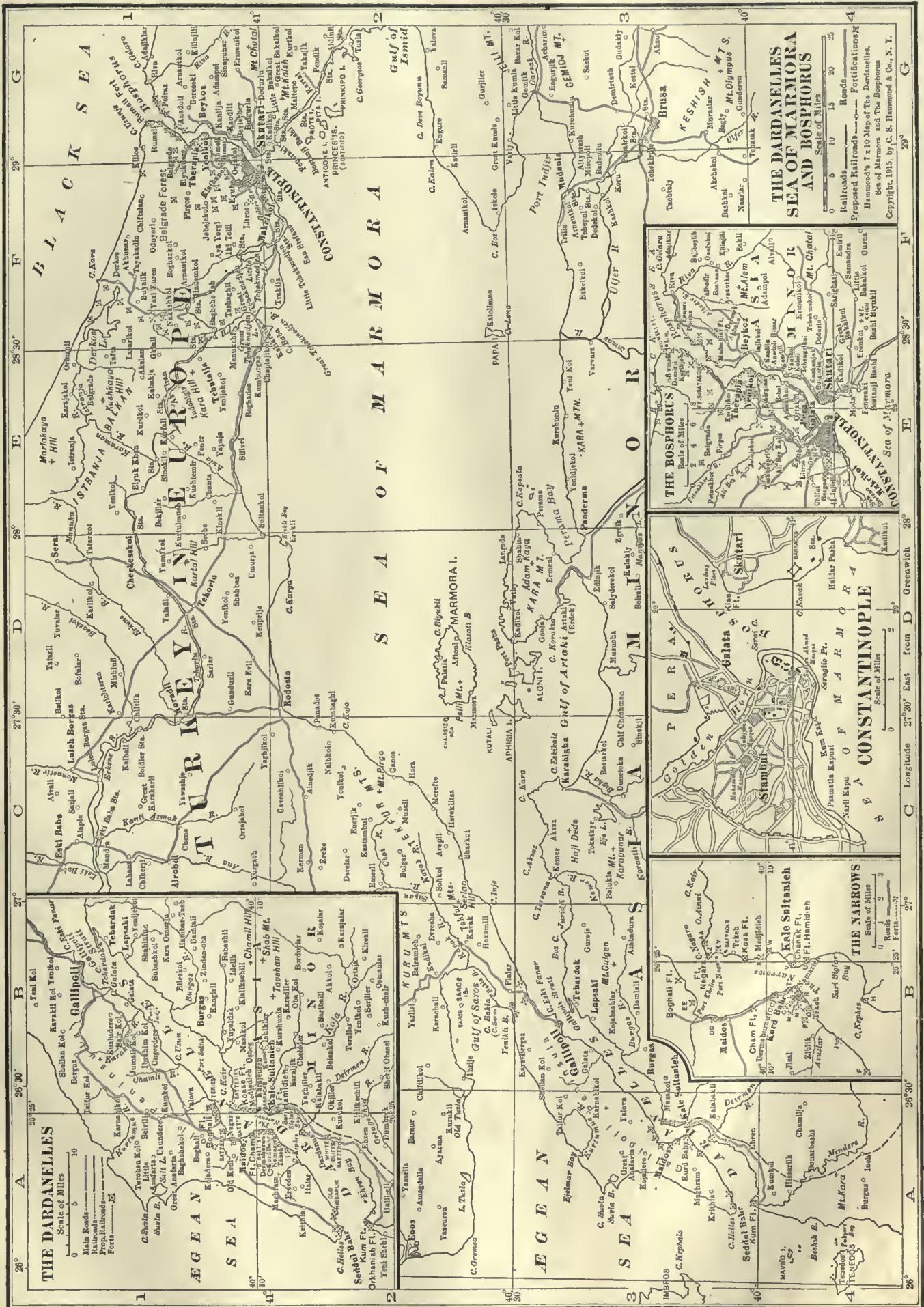
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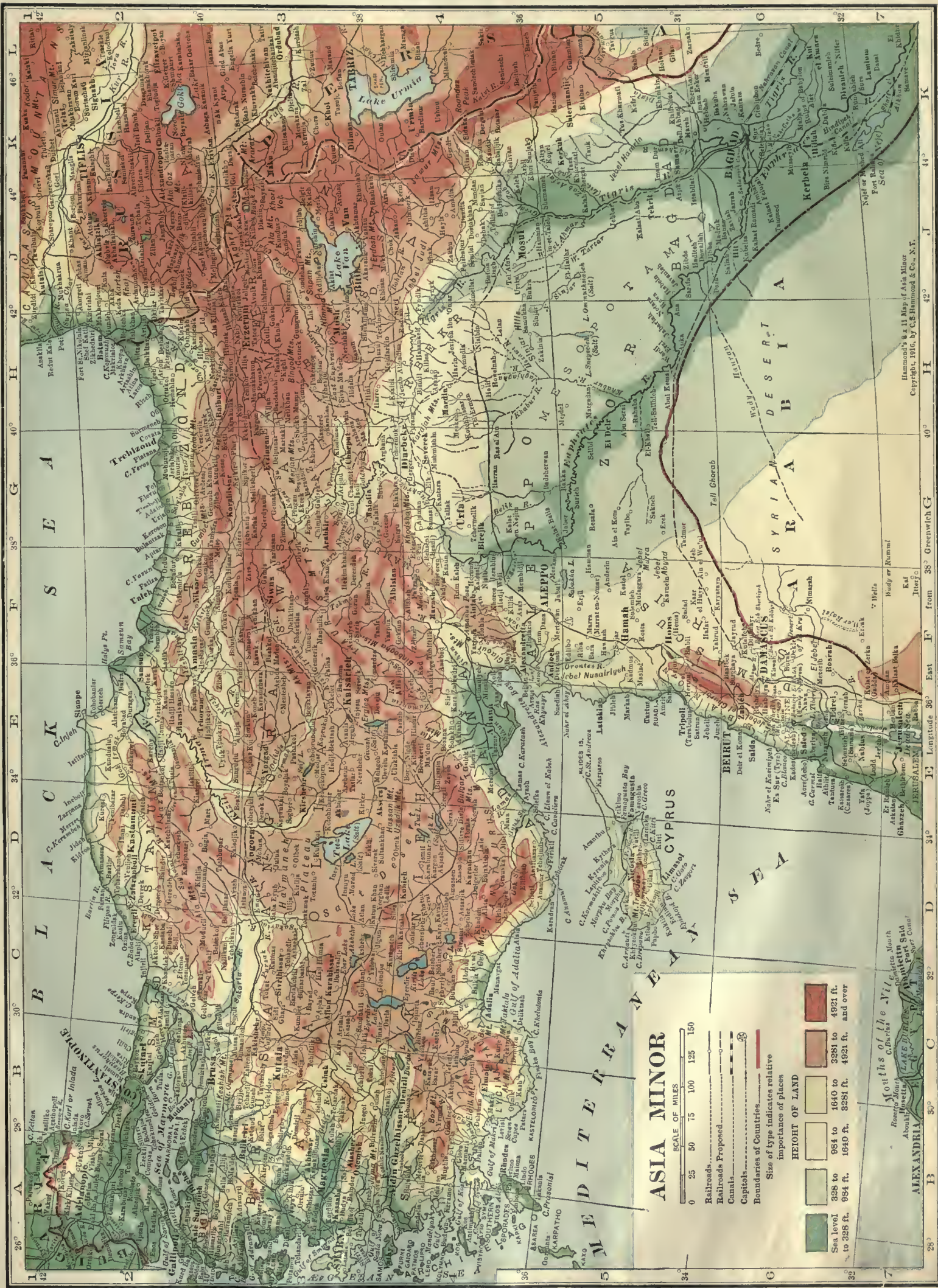


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- Sleydinge, B.G 2
- Slype, B.E 2
- Snaeskerke, B.E12
- Soex, F.D 3
- Sohier, B.J 6
- Soissons, F.F 9
- Soizy, F.G11
- Solente, F.E 8
- Solesmes, F.F 6
- Solesmes, F.G 6
- Sologne, G.M11
- Solre, F.H 6
- Somain, F.F 5
- Sombrin, F.D 5
- Sombrin, F.D 6
- Somergem, B.G 2
- Sommauthe, F.J 8
- Somme-Blonne, F.H10
- Sommevedie, F.K10
- Sommeilles, F.K11
- Sommepey, F.H 9
- Sommerance, F.K 9
- Sommerville, F.M12
- Sommeseus, F.H11
- Somme-Suppes, F.J10
- Somme-Tourbe, F.H10
- Somme-Yevre, F.H11
- Sommiers, B.J 5
- Sompnis, F.H12
- Somzee, B.H 5
- Son, F.H 8
- Sondernach, G.O15
- Songy, F.H11
- Sons, F.G 7
- Soppe, G.O16
- Sorbery, G.M10
- Sorey, F.L12
- Sorel, F.F 6
- Sorneville, F.M12
- Sottagem, B.G 3
- Sotzweiler, G.O 9
- Souain, F.H10
- Souchez, F.E 5
- Soude N. D., F.H11
- Soude Ste. Cry, F.H11
- Soudron, F.H11
- Souilly, F.K10
- Soulanges, F.J11
- Soultzbach, G.O14
- Soultzmatt, G.O15
- Soumoy, B.H 6
- Soupir, F.G 9
- Spada, F.L11
- Spiesen, G.O 9
- Spincourt, F.L 9
- Staden, B.F 3
- Staple, F.D 3
- Staufen, G.P15
- Stave, B.J 5
- Stavele, B.E 3
- Steenbrugge, B.F 2
- Steece, B.E 2
- Steeue, F.D 3
- Steenstraete, B.E 3
- Steenvoorde, F.E 3
- Steige, G.O13
- Steinach, G.R13
- Steinalben, G.P 9
- Steinbach, G.O15
- Steinbach, G.R12
- Steinburg, G.O11
- Steinfeld, G.R10
- Steinfeld, L.L 8
- Stenay, F.K 8
- Stollhofen, G.K11
- Stonne, F.J 8
- Stosswehr, G.O14
- Straimont, B.K 7
- Strassburg, G.P12
- Strazelle, F.E 4
- Stuckange, G.M 9
- Sturzelbronn, G.P10
- Suffienheim, G.P11
- Sultgen, G.M 9
- Sulzbach, G.O 9
- Sulzbach, G.O12
- Sulzbach, G.P15
- Sulzere, G.O14
- Surburg, G.P11
- Suxy, B.K 7
- Sweveghen, B.F 3
- Syssele, B.F 2
- Tagnon, F.H 9
- Tahure, F.H 9
- Taillefontaine, F.F 9
- Taintrux, F.N13
- Talma, F.J 9
- Tannay, F.J 8
- Tannois, F.K12
- Tarcienne, B.H 5
- Tartiers, F.F 9
- Tavaux, F.G 7
- Tavigny, B.L 6
- Tellancourt, F.L 8
- Templeuve, B.F 4
- Templeuve en Pévèle, F.F 4
- Tenneville, B.K 6
- Ternier, F.F 8
- Termes, B.K 8
- Ternuay, F.N15
- Terny, F.F 9
- Terriere, F.G 5
- Tertry, F.F 7
- Teterchen, G.N10
- Tetingen, G.N10
- Thailer, G.N 8
- Thann, G.O15
- Thannweiler, G.O13
- Thaon, F.M14
- They, G.O 9
- Thelus, F.E 5
- Thenorgues, F.J 9
- Therouanne, F.D 4
- Thézy, F.M11
- Thiant, F.F 5
- Thiaucourt, F.L11
- Thibie, F.H11
- Thiebemont, F.J12
- Thiefosse, F.N15
- Thielt, B.F 3
- Thiennes, G.P14
- Thiennes, F.E 4
- Thiescourt, F.E 8
- Thil, F.G 9
- Thilloit, F.L10
- Thillois, F.G 9
- Thin-le-Moutier, F.J 8
- Thionville, G.M11
- Thionville, G.M 9
- Thirimont, B.H 5
- Tholey, G.O 9
- Thonne le Thil, F.K 8
- Thynes, B.J 5
- Tillet, B.L 6
- Tilloy, F.E 8
- Tilloy, F.E 5
- Tilloy-Bellay, F.J10
- Tilly, F.K10
- Tincourt, F.F 7
- Tincry, F.M11
- Tinques, F.D 5
- Tintange, B.L 7
- Titisee, G.P15
- Toges, F.J 9
- Tontenoy, F.F 9
- Torcy, F.H10
- Touquet, F.C 4
- Tortegonne, F.F 5
- Toufflers, F.F 4
- Toul, F.L12
- Toulis, F.G 8
- Tournay, B.F 4
- Tournes, F.J 7
- Tourpues, B.G 4
- Tourteron, F.J 8
- Toutonville, F.M13
- Tracy, F.E 9
- Tramery, F.G10
- Tranchiennes, B.K 6
- Traninne, B.G 2
- Trassem, G.N 8
- Trelon, F.H 6
- Treloup, F.G10
- Tremblecourt, F.L11
- Trebombrn, G.N10
- Triancourt, F.J11
- Triconville, F.K11
- Trioux, F.L 9
- Trilport, F.E11
- Trintingen, L.M 8
- Trittleinge, G.N10
- Trondes, F.L12
- Tronville, F.K12
- Tronville, F.L10
- Trosly, F.F 8
- Trousseau, F.L12
- Troyon, F.G 9
- Troyon, F.K10
- Truchtersheim, G.P12
- Trulben, G.P10
- Turcoing, F.F 4
- Turkheim, G.O14
- Uckingen, G.M 9
- Uckinger, G.M 9
- Uffholz, G.O15
- Ugny, F.F 8
- Umet, G.O 8
- Unterthal, G.R12
- Urbes, G.N15
- Urmatt, G.O12
- Ursel, B.F 2
- Utzenfeld, G.P15
- Vacon, F.L12
- Vacray, F.J11
- Vagny, F.N14
- Valenciennes, F.G 5
- Valhey, F.M12
- Valhuen, F.D 5
- Valmy, F.J10
- Vance, B.L 8
- Vandieres, F.L11
- Vandoeuvre, F.M12
- Vandy, F.J 9
- Vannecourt, G.N11
- Varennes, F.J10
- Varneville, F.L11
- Varney, F.K11
- Varredes, F.L12
- Varsenaere, B.F 2
- Varvinay, F.L11
- Vassens, F.F 9
- Vatry, F.H11
- Vaubecourt, F.K11
- Vaucelles, F.F 6
- Vauchamps, F.G11
- Vaulcers, F.J12
- Vauday, F.F12
- Vaudescourt, F.H10
- Vaudetre, F.H 9
- Vaudoncourt, F.L 9
- Vauquois, F.K10
- Vaumois, F.F10
- Vauvillers, F.E 7
- Vauvillers, F.M15
- Vaulx, F.E 6
- Vaulx, B.F 4
- Vaux, F.F 7
- Vaux, F.J 9
- Vaux, F.K10
- Vaux, F.L10
- Vaux, G.M10
- Vauxcerc, F.G 9
- Vailly, F.F 9
- Vavincourt, F.K11
- Veving, G.N10
- Velaine, F.M12
- Velaines, B.F 4
- Velasnes, F.K 8
- Velu, F.E 6
- Venault, F.J11
- Vendegies, F.G 5
- Vendegies, F.G 6
- Vendesles, F.F 7
- Vendenheim, G.P12
- Vendresse, F.J 8
- Vendresse, F.F10
- Veneimont, B.J 6
- Venezel, F.F 9
- Venezey, F.N13
- Ver, F.E10
- Verberie, F.E 9
- Verdelot, F.F11
- Verdun, F.K10
- Vergaville, G.N11
- Verlinghem, F.E 4
- Vermard, F.F 7
- Vermandovillers, F.E 7
- Vermelles, F.E 5
- Verneuill, F.G 8
- Verneuill, F.G10
- Verneuill, G.M10
- Verny, G.M10
- Verpel, F.J 9
- Verrieres, F.J 8
- Verrieres, F.J10
- Versigny, F.F 8
- Vertus, F.G11
- Vertuzey, F.L12
- Vervins, F.G 7
- Very, F.K 9
- Verzenay, F.H10
- Verzy, F.H10
- Veschem, G.O11
- Vescoux, F.N15
- Vesigneul, F.H11
- Veslud, F.G 8
- Vesqueville, B.K 6
- Vezeponis, F.F 9
- Vezeville, F.M13
- Vezeville, F.G 4
- Vic, G.N11
- Vichte, B.F 3
- Vie, F.F 9
- Viell, F.G 9
- Viels Maisons, F.F11
- Vienne-la-Ville, F.J10
- Vienne-le-Chateau, F.J10
- Vieville, F.L11
- Vieux, F.J 9
- Vieux Berquin, F.E 4
- Vieux Condé, F.F 5
- Viffort, F.F11
- Vigneulles, F.L11
- Vigneux, F.G 7
- Vigy, G.M10
- Ville, F.K 9
- Ville, F.M11
- Ville-en-Tardenois, F.G10
- Villemontoire, F.F 9
- Villeneuve, F.E12
- Villeneuve-le-Comte, F.E11
- Villers, F.D 7
- Villers, F.E 7
- Villers, F.F 6
- Villers, F.G 5
- Villers, F.G 9
- Villers, F.H 8
- Villers, F.J10
- Villers, F.K 9
- Villers, F.L 9
- Villers, F.M12
- Villers-aux-Bois, F.G11
- Villers-Bretonneux, F.E 7
- Villers Cotterets, F.F 9
- Villers-Fancon, F.F 7
- Villers sur Lesse, B.K 6
- Villereup, F.L 9
- Villeselve, F.F 8
- Villeseneux, F.H11
- Ville sur Tourbe, F.J10
- Ville-s-Yron, F.L10
- Villey, F.L12
- Villiers le Bel, F.D10
- Vilosnes, F.K 9
- Villette, F.K11
- Vimy, F.E 5
- Vimay, F.G10
- Vincennes, F.D11
- Vincey, F.M13
- Viomenil, F.M14
- Vionville, G.L10
- Virecourt, F.M13
- Vireux, F.J 6
- Virton, B.K 8
- Viry, F.F 8
- Vitarville, F.K 9
- Vitasse, F.E 5
- Vitrimont, F.M12
- Vitry, F.J12
- Vitry, G.M 9
- Vitry en Artois, F.E 5
- Vitry-en-Artois, F.F 5
- Vitry-en-P., F.J11
- Vittonville, F.M11
- Vivy, B.K 7
- Vladisloob, B.E 2
- Vlammerlinghe, B.E 3
- Voit, F.L12
- Volcksborg, G.O11
- Volkingen, G.N10
- Völmmeringen, G.N10
- Voncq, F.J 9
- Voneche, B.J 6
- Voormezele, B.E 3
- Vorges, F.F 7
- Vouziers, F.J 9
- Voyenne, F.G 8
- Vregny, F.F 9
- Vrely, F.E 7
- Vrigne, F.J 7
- Vrivy, F.J 9
- Vron, F.C 5
- Vry, G.M10
- V. surillon, F.M14
- Vires, F.F 6
- Vynckt, B.F 2
- Waben, F.C 5
- Wacques Farm, F.J10
- Waderin, G.N 8
- Wacreghem, B.F 3
- Wagner, G.M10
- Wall, F.D 5
- Wally, F.C 5
- Walburg, G.P11
- Walcourt, B.H 5
- Waldfischbach, G.P 9
- Waldhausen, G.P10
- Waldkirch, G.R14
- Waldweise, G.N 9
- Walferden, L.M 8
- Walthalben, G.P 9
- Wallerand, F.J 6
- Wallerfangen, G.N 9
- Walters, F.F 5
- Wambrechies, F.F 4
- Wancennes, B.J 6
- Wancourt, F.E 6
- Wangassen, G.N10
- Wanlin, B.K 6
- Wanzenau, G.P12
- Warca, F.L10
- Warchin, B.F 4
- Wardamme, B.F 2
- Wardin, B.L 6
- Warhem, F.E 3
- Warmeriville, F.H 9
- Warvillers, F.E 7
- Wasen, G.P15
- Wasigny, F.H 8
- Wasmes, B.G 5
- Wasselheim, G.O12
- Wassigny, F.G 6
- Wattigny, F.L 7
- Watten, F.D 3
- Wattrelos, F.F 4
- Watteiler, G.O15
- Wauxaillon, F.F 9
- Wavignies, F.D 8
- Wavran, F.D 5
- Wavreille, B.K 6
- Wavreille, F.K 9
- Wavrin, F.E 4
- Waziers, F.F 5
- Weenduyne, B.F 1
- Weidersheim, G.O10
- Weiler, G.O13
- Weiler, G.O15
- Weilerthal, G.O13
- Weiselbach, G.O 8
- Weiskirchen, G.N 8
- Weissenburg, G.P10
- Weisswell, G.P14
- Weiten, G.N 8
- Weitersweiler, G.O11
- Wellin, B.K 6
- Wembach, G.P15
- Wercken, B.F 2
- Weris, B.K 5
- Wervicq, F.E 4
- Wervicq, B.E 4
- Wesling, G.P 9
- Wesseling, G.O15
- Westende, B.E 2
- Westkerke, B.F 2
- Westrethem, F.D 4
- Westroosebeke, B.E 3
- Westvleteren, B.E 3
- Wetteren, B.G 2
- Wettolsheim, G.O14
- Wez, B.F 4
- Wez Macouart, F.E 4
- Wibrin, B.L 6
- Wielbiskirchen, G.O 9
- Wigncourt, F.E 7
- Wignehies, F.G 6
- Wildenstein, G.O15
- Wilgartsweissen, G.P10
- Willencourt, F.D 5
- Willerwald, G.N10
- Wilskerke, B.E 2
- Wimereux, F.C 3
- Wimille, F.C 3
- Winchringen, G.N 8
- Winden Minfeld, G.R10
- Wingen, G.O11
- Wingles, F.E 5
- Winnezele, F.E 3
- Winzenbach, G.R11
- Winzenheim, G.O14
- Wirwignes, F.C 4
- Wismes, F.D 4
- Wissant, F.C 3
- Witry, B.L 7
- Witry, F.H 9
- Wittenheim, G.O15
- Wittes, F.D 4
- Wiviersheim, G.P12
- Woel, F.L10
- Woesten, B.E 3
- Woimbe, F.K11
- Woippy, G.M10
- Wolferding, G.O1







ASIA MINOR

SCALE OF MILES
0 25 50 75 100 125 150

- Railroads. ————
- Canals. ————
- Capitals. ————
- Boundaries of Countries. ————
- Size of type indicates relative importance of places
- HEIGHT OF LAND
- Sea level. 328 to 984 ft.
- 984 to 1640 ft.
- 1640 to 3281 ft.
- 3281 to 4921 ft.
- 4921 ft. and over

Months of the Year
About the Sea
ALEXANDRIA

THE PRONUNCIATION OF WAR NAMES

By C. O. SYLVESTER MAWSON, Litt.D., Ph.D.

KEY TO PRONUNCIATION

VOWEL SOUNDS: *â*, *âre*, *ârm*, *âsk*, *senâte*, *âm*, *orgân*, *sofd*; *êve*, *êvent*, *ênd*, *novêl*, *bakêr*; *Ice*, *Ill*; *ôld*, *ôrb*, *ôbey*, *ôdd*, *cômbine*; *ûse*, *ûrn*, *ôolte*, *ûp*, *locust*; *fôdd*, *fôdt*; *out*, *oil*; *menû*.
NOTE.—*u*, as in French *menu* or German *Mûller*, has no equivalent in English. To pronounce it hold the lips rigidly in position to say *oo* and attempt to say *û*. *û* or *œ* in German resembles the English *u* in *urn*; e. g., *Gôthe* or *Goethe* is pronounced *gô'tê*.

CONSONANTS: As in English. *ch* as in *chair*; *g* as in *go*; *kw* for *qu* as in *queen*; *s* as in *so*; *sh* as in *she*; *z* as in *zone*; *zh* as *z* in *azure*.

SPECIAL SYMBOLS: **K** (small capital) for *ch* as in German *Ich* or Scotch *loch*; **N** (small capital) indicates nasal tone of preceding vowel, as in French *bon* (*bôn*); **ŋ** (= *ng*) for *n* before the sound of *k* or hard *g* as in *bank* (*bânk*), *Anger* (*În'gêr*); ' indicates the elision of a vowel, or a mere suggestion of a vowel sound, as in *Ypres* (*Û'pr*).

ACCENTS: The principal or primary accent is indicated by a heavy mark (ˊ), and the secondary accent by a lighter mark (ˋ); thus *Bourines* (*bôo'vên*), *Massachusetts* (*mâs'd-chôô'sêts*).

NOTE.—French names have the primary accent on the final full syllable, but this accent should generally be very slight. The other syllables are marked with equal stress. In German names the principal accent is placed earlier in the word, as in English. In Hungarian and Bohemian names the accent is on the first syllable. In Polish, as in Italian, the accent is on the penult. In Russian the accent is capricious but very marked.

NAMES FROM THE WESTERN WAR AREA

Aachen (or Aix-la-Chapelle), *â'kêa*
Aalst (or Alost), *âist*
Aincourt, *â'zhân'kôor'*; Eng. *âj'la-kôrt*
Aisne (river), *ân*
Aix-la-Chapelle (or Aachen), *âks/lâ'shâ'pêl'*
Albert, *âl'bâr'*
Alost (or Aalst), *âl'loet*
Altkirch, *âl't'kirx'*
Amiens, *âm'yân'*
Ancre (river), *ân'kr'*
Argonne, *âr'gôn'*
Arlois, *âr'lôn'*
Armentières, *âr'mân'tyâr'*
Arras, *âr'ras'*
Artois, *âr'twâ'*
Attigny, *ât'ty'nyê'*
Aube (river), *ôb*
Aubenton, *ô'bân'tôn'*
Aubigny, *ô'b'y'nyê'*
Audecaerde (or Oudenarde), *ou'dê-nâr'dê*
Avesnes, *â'vân'*
Aviscourt, *â'vrê'kôor'*
Bâle (or Basel), *bâl*
Bapaume, *bâ'pôm'*
Bar-le-Duc, *bâr'lê'dûk'*
Basel (or Bâle), *bâ'zêl*
Bassée, La, *lâ' bâ'sâ'*
Bastogne, *bâs'tôn'yê'*
Bavay, *bâ'vê'*
Beaumont, *bô'môn'*
Beauvais, *bô'vê'*
Belfort, *bê'l'fôr'*
Berlaimont, *bê'r'lê'môn'*
Bertincourt, *bê'r'tân'kôor'*
Besançon, *bê'sân'sôn'*
Béthune, *bê'tîn'*
Blamont, *blâmôn'*
Bohain, *bô'hân'*
Bouchain, *bô'shân'*
Bouillon, *bô'vôn'*
Boulogne, *bô'lon'yê'*; Eng. *bôô-lôn'*
Bouvines, *bô'vân'*
Boves, *bôv*
Brabant-le-roi, *brâ'bân'lê-rovê'*
Braine-le-Comte, *brân'lê-kôm'tê'*
Bray-sur-Seine, *brê'sûr'sân'*
Briey, *brê'yê'*
Bruges, *brûzh*
Calais, *kâl'ê'*; Eng. *kâl'pâ*
Cambrai (or Cambray), *kân'brê'*
Carignan, *kâr'nyân'*
Cateau, Le, *lê' kâ'tô'*
Châlons-sur-Marne, *shâ'lôn'sûr'mâr'n'*
Chalon-sur-Saône, *shâ'lôn'sûr'sôn'*
Champigny, *shân'p'y'nyê'*
Charleroi (or Charleroy), *shâr'lê-rwâ'*
Charleville, *shâr'lê'vêl'*
Châteauroux, *shâ'tê'rôo'*
Château-Thierry, *shâ'tê'tyê'rê'*
Châtel, *shâ'tê'l'*
Châtillon-sur-Marne, *shâ'tê'yôn'sûr'mâr'n'*
Claudefontaine, *shô'd'fôn'tân'*
Chaulnes, *shô'n'*
Chaumont, *shô'môn'*
Chauny, *shô'n'yê'*
Chimay, *shê'mê'*
Chiny, *shê'nê'*
Cincy, *shê'nê'*
Clary, *klâr'yê'*
Comblès, *kôm'bl'*
Comines, *kôm'mên'*
Commercy, *kôm'mêr'sê'*
Compiègne, *kôm'pyê'n'yê'*
Condé, *kôn'dê'*
Conflans, *kôn'flân'*
Coucy-le-Château, *kôô'sê'lê-shâ'tô'*
Coulommiers, *kôô'lôm'yâ'*
Courtrai, *kôor'trê'*
Craonne, *krâ'ôn'*
Crécy (or Cressy), *krâ'sê'*; Eng. *krê'sy'*
Crécy-sur-Serre, *krâ'sê'sûr'sâr'*
Croisilles, *krô'vê'l'*
Dammartin, *dâm'mâr'tân'*
Dampvillers, *dâm'vê'yâ'*
Denain, *dên'nân'*
Dendermonde (or Termonde), *dên'dêr-môn'dê'*
Diedenhofen (or Thionville), *dê'dên-hô'fên'*
Dijon, *dê'zhôn'*
Dinant, *dên'nân'*
Dixmude, *dêks'mûd'*, *dê'mûd'*
Dompierre, *dôn'pâr'*
Dormans, *dôr'mân'*
Douai (or Douay), *dôo'â'*
Doullens, *dôô'lân'*
Épernay, *ê'pêr'nê'*
Épinal, *ê'pê'nâl'*
Étaio, *ê'tân'*
Fère, La, *lâ' fâr'*
Fère-Champenoise, *fâr'shân'pê-nwâz'*
Fère-en-Tardenois, *fâr'ân'târd'nwâ'*
Ferté-Gaucher, La, *lâ' fêr'tâ'gô'shâ'*

Ferté-sous-Jouarre, La, *lâ' fêr'tâ'sôo'zhôô'âr'*
Fourmies, *fôor'mê'*
Fresnes-en-Woëvre, *frên'ân'vô'ê'vr'*
Genappe, *zhê'nâp'*
Gironville, *zhê'rôn'vêl'*
Givenchy, *zhê'vân'sbê'*
Givet, *zhê'vê'*
Gorizia (or Görz), *gô-rîd'zê'â'*
Görz (or Gorizia), *gôrta*
Gravelotte, *grâv'lôt'*
Guiscard, *gêz'kâr'*
Guise, *gû'êz'*
Hal, *hâl*
Hautmont, *ô'môn'*
Helgoland (or Heligoland), *hêl'gô-lânt*
Hirson, *êr'sôn'*
Huy, *hôi*
Juniville, *zhû'nê'vêl'*
La Bassée, *lâ' bâ'sâ'*
La Fère, *lâ' fâr'*
La Fère-Champenoise, *lâ' fâr'shân'pê-nwâz'*
La Ferté-Gaucher, *lâ' fêr'tâ'gô'shâ'*
La Ferté-sous Jouarre, *lâ' fêr'tâ'sôo'zhôô'âr'*
Lagny, *lâ'nyê'*
Landrecies, *lân'drê'sê'*
Langres, *lân'gr'*
Langion, *lân'gê'ôn'*
Laon, *lân*
Le Cateau, *lê' kâ'tô'*
Lens, *lân's*
Le Quesnoy, *lê' kâ'owâ'*
Liécourt, *lê'ân'kôor'*
Lijège, *lê'zhê'*
Lierre, *lê'âr'*
Ligny, *lên'yê'*
Ligny-en-Barrois, *lên'yê'ân'bâ'rwâ'*
Lille (or Lisle), *lêl*
Longwy, *lôn'vê'*
Loos, *lô'ô'*
Lorraine (or Lothringen), *lô'rân'gên*
Louvain, *lô'vân'*
Lunéville, *lû'nâ'vêl'*
Lys (river), *lê's*
Mainz (or Mayence), *mân'ts*
Maisons-Alfort, *mâ'zôn-zâl'fôr'*
Marcoing, *mâr'kwân'*
Maubeuge, *mô'bûzh'*
Mayence (or Mainz), *mâ'yân'sê'*
Meaux, *mô*
Meln, *mê'lân'*
Messancy, *mê'sân'sê'*
Meuse (river), *môz*; Eng. *mûz*
Mézières, *mê'zyâr'*
Mons, *môn's*
Montdidier, *môn'dê'dyâ'*
Monthureux, *môn'tû'rô'*
Mootmédy, *môn'mâ'dê'*
Moutmirail, *môn'mê'râ'y'*
Moreuil, *mô'rô'y'*
Mouvaux, *mô'vô'*
Moyenmoutier, *mô'yân'môo'tyâ'*
Mülhausen, *mûl'hôuzên'*
Namur, *nâmûr'*
Nancy, *nân'sê'*; Eng. *nân'sl*
Neale, *nâl*
Neufchâteau, *nô'shâ'tô'*
Neuilly-sur-Marne, *nô'yê'sûr'mâr'n'*
Neuve Chapelle, *nô'vê'shâ'pêl'*
Nieuport, *nê'ôo-pôrt*
Nîmes (or Nismes), *nêm*
Oise, *wâz*
Orchies, *ôr'shê'*
Oudenarde (or Audenarde), *ou'dê-nâr'dê'*
Ourcq (river), *ôork*
Ourthe (river), *ôort*
Péronne, *pê'rôn'*
Philippeville, *phê'pê'vêl'*
Pierrefitte, *pyâr'fê't'*
Pierrefonds, *pyâr'fôn'*
Poitiers, *pô'vâ'tyâr'*
Poix, *pô'x*
Pont-à-Mousson, *pôn'tâ'môo'zôn'*
Pont Ste. Maxence, *pôn'sânt'mâ'zân'sê'*
Quatre-Bras, *kâ'tr-brâ'*
Quesnoy, Le, *lê' kâ'owâ'*
Ramillies, *râ'mê'yê'*
Raon-l'Étape, *rân'lâ'tâp'*
Raucourt, *rô'kôor'*
Rethel, *rê'têl'*
Reims (or Reims), *rêmz*; Fr. *rân's*
Ribecourt, *rê'b'kôor'*
Ribemont, *rê'b'môn'*
Rochefort, *rôsh'fôr'*
Rocroi, *rô'krô'wâ'*
Roisel, *rô'zêl'*
Roubaix, *rô'vâ'*
Roulers, *rô'lê'*
Roye, *rô'yê'*
Rozoy-sur-Serre, *rô'zô'vâ'sûr'sâr'*
Saar (river), *zâr*
Saarbrücken, *zâr'brûk'ên'*

Saint-Amand, *sân'tâ'mân'*
Saint-Denis, *sân'dê'nê'*
Saint-Dié, *sân'dyâ'*
Saint-Hubert, *sân'tû'bâr'*
Saint-Mihiel, *sân'mê'yêl'*
Saint-Omer, *sân'tô'mâr'*
Saint-Quentin, *sân'kân'tân'*
Sédan, *sê'dân'*
Sambre (river), *sân'br'*
Sedan, *sê'dân'*
Senlis, *sân'lê's'*
Sézanne, *sê'zân'*
Signy l'Abbaye, *sê'n'yê'lâ'bâ'*
Sissonne, *sê'sôn'*
Soissons, *sô'sôn'*
Solesmes, *sô'lâm'*
Somme (river, department), *sôm*
Suippes, *swêp*
Termonde (or Dendermonde), *têr'môn'd'*
Thiaucourt, *tyô'kôor'*
Thielt, *têl't*
Thionville (or Diedenhofen), *tyôn'vêl'*
Thuin, *tû'ân'*
Tirlemont, *têr'l'môn'*
Tongres, *tôn'gr'*
Toul, *tôol*
Tourcoing, *tôor'kwân'*
Tournay (or Tournai), *tôor'nâ'*
Trélon, *trâ'lôn'*
Trieste (or Triest), *trê'st'*
Valenciennes, *vâ'lân'syên'*
Varenes-en-Argonne, *vâr'ên-zân'âr'gôn'*
Verdun, *vêr'dôn'*
Versailles, *vêr'sây'*; Eng. *vêr-sây'*
Vervins, *vêr'vân'*
Villers-Bretonneux, *vê'lâr-brê'tô'nô'*
Villers-Cotterets, *vê'lâr-kô'tê'rê'*
Villers-la-Ville, *vê'lâr-lâ'vêl'*
Visé, *vê'zâ'*
Vitry-en-Artois, *vê'trê'ân'âr'twâ'*
Vitry-le-François, *vê'trê-lê'frân'swâ'*
Voages, *vôzh*
Vouziers, *vô'zyâr'*
Wassigny, *vâ'sê'yê'*
Wavre, *vâ'vr'*
Wœvre, *vô'ê'vr'*
Ypres, *Û'pr*
Yser (river), *Û'sê'*
Yvoire, *Û'vô'âr'*
Zabern, *tsâ'bêrn*
Zebruggé, *tsâ-brôogê'*

NAMES FROM THE EASTERN WAR AREA

Aldin, *l-dên'*
Allenstein, *âl'ên-shlên'*
Ardahan, *âr'dâ-hân'*
Angustowo, *ôn'gôo-tô'vô*
Baku, *bâ'kô'*
Batum, *bâ'tôm'*
Belgrade, *bêl'grâd'*
Beuthen, *bô'itên'*
Bialystok, *byâ'lytôk*
Bosphorus (or Bosporus), *bô'spô-rûs'*
Botofhani, *bô'tô-shân'y'*
Brâila, *brâ'ê'lâ'*
Braunsberg, *brônz'bêrk*
Brest-Litovak, *brêst'lyê'tôfak'*
Brusa (or Brussa), *brôo'sâ'*
Buczacz, *bôo'châch*
Bug (river), *bôog*
Bukharest (or Bucharest), *bô'kd-rêst'*
Bukovina (Bukovina), *bô'kô'vê'nâ'*
Cernavoda (or Tchernavoda), *chêr'nâ'vô'dâ'*
Cetinja (or Cetinje), *tsê'tên-yâ'*
Constanta (or Kustendje), *kôn-âtân'tsâ'*
Cracow (or Krakow), *krâ'kô'*
Craiova (or Craiova), *krâ'yô'vâ'*
Crimea, *krî'mê'dâ'*; *krî'mê'd*
Czesotachowa, *chê'n'stô'kô'vâ'*
Czernowitz, *chêr'nô'vîts*
Danzig (or Dantzic), *dân'tsk*
Dardanelles, *dârdâ'nêl's'*
Delatyn (pass), *dê'lâ'tîn*
Diarbekr (or Diarbekir), *dê'âr'bêk'r'*
Dieper (river), *dê'pêr'*
Dniester (river), *nê'stêr'*
Drohobycz, *d'rô'hô'bitch*
Dubno, *dôob'nô'*
Dukla, *dôok'lâ'*
Durazzo, *dôo-râ'tô'*
Épirus, *ê'pî'rûs*
Eregli, *ê'rê'glê'*
Erivan, *ê'rê-vân'*
Erzerum, *êr-zê'rum'*
Erzingan, *êr'zîn-gân'*
Euphrates (river), *û-frâ'têz*
Eydtkuhnen, *Û-kô'ô'nâ'*
Fiume, *fyôomâ'*
Galatz, *gâl'â'tsâ'*
Galicia, *gâl'lyâ'lyâ'*
Gallipoli, *gâl'lê'pô'lê'*
Gleiwitz, *glê'vîts*
Gnesen, *g'nê'zên'*
Gumbinaco, *gôom'blâ'ên'*

Herzegovina, *hêr'têz-gô'vê'yû'*
Horodenska, *hô'rô-dên'kâ'*
Ivangorod, *ê-vân'gô-rô't*
Jamboll (or Yamboli), *yâm'bô'lê'*
Jaroslaw (or Jaroslau), *yâ-rô'slâf'*
Jassy (or Yassy), *yâ'sê'*
Kaisariéh (or Kaisariyeh), *kl'sâ-rê'yê'*
Kalisz, *kâl'yêsh*
Keltay (or Kielce), *kyê'l'tâ'*
Kholm, *kôlm*
Khotin, *kô'tyên'*
Kiev (or Kiev), *kê'yê'*
Kielce (or Keltay), *kyê'l'tê'*
Kishinef (or Kishinev), *kê'shê-nyê'l'*
Kolomea, *kô'lô-mâ'â'*
Königsberg, *kô'nîks-bêrk*
Kovel, *kô'vê'l-y'*
Kragojevatz (or Krageuyevatz), *krâ-gôo'yê-vâts*
Krakow (or Cracow), *krâ'kô'*
Kremenchug (or Krementchug), *krêm'ên-chôok'*
Kremnitz, *krêm'nîtsâ'*
Kur or Kura (river), *kôor*; *kôorâ'*
Kurisches Haff, *kôor'ish-ês hâf'*
Kustendje (or Constanța), *kûs-tên'jê'*
Lemberg (or Lwów), *lêmbêrk*
Liban, *lê'bou*
Lodz (or Łódź), *lôdz*; *lôdj*
Lomza, *lôm'zhâ'*
Lötzen, *lô'tzên'*
Lublin (or Lyublin), *lyô'blyên'*
Lutzk (or Lutsk), *lôtsk*
Lwów (or Lemberg), *lyô'f*
Mährisch-Ostrau, *mâ'rish-ô'strou*
Marienburg, *mâ-rê'n-bôor'k*
Mitrovica (or Mitrovitz), *mê'trô-vê'tsâ'*
Moldava (river), *môl-dâ'vâ'*
Monastir, *môn'dâ'têr'*
Mush, *môsh*
Nakhitchevan, *nâ'kê-chê-vân'*
Narew or Narev (river), *nâr'êf'*
Neutitschein, *nô'it'shên'*
Nikolajef (or Nikolayev), *nyê'kô-lây'yê'*
Novogorjievsk, *nô'vô-gô'ôr'gê'yê'fak*
Olmütz, *ô'l'mûtsâ'*
Ostrog, *ô'strôk'*
Ostrow, *ô'strôf'*
Peremysl (or Przemysl), *pê-rê'mîshl-y'*; *pê'hê'mîshl-y'*
Petrokov (or Piotrków), *pyê'trô-kôf'*
Piotrków (or Petrokov), *pyô'trô'kôf'*
Podgorze, *pôd-gôo'zhê'*
Priepet, *prê'pê't*
Priensend, *prê'n'sênd'*
Proskurof (or Proskurov), *prô'skôo-rôf'*
Pruth (river), *prôot*
Przanasz, *prâ'sân'sh*
Przemysl (or Peremysl), *pê'hê'mîshl-y'*
Pultusk, *pôolt'ôosk*
Radom, *râ'dôm*
Radzivilov, *râd'zê'vê'lôf'*
Rastenburg, *râ'stê'n-bôor'k'*
Rava (or Rawa), *râ'vâ'*
Rawaraska, *râ'vâ-rôos'kâ'*
Riga, *rê'gâ'*
Rzeszow, *zhê'shôf'*
Saloniki (or Salonica), *sâl'ô-nê'kê'*
San (river), *sân*
Sarajevo (or Sarajevo), *sâr'yâ'vô'*
Scutari (or Skutari), *skôotâ-rê'*
Sere, *sê'rê's*
Sereth (river), *sê-rê't'*
Siedlee (or Syedlets), *shê'l'tê'*
Sinob (or Sinope), *sê-nôb'*
Sinope (or Sinob), *sî-nô'pê'*
Sivas, *sê'vâ's'*
Skopje (or Ūskûp), *skôp'yê'*
Skutari (or Scutari), *skôotâ-rê'*
Sofia (or Sophia), *sô'fê-â'*; *sô-lê'â'*
Sokolof (or Sokolow), *sô'kô-lôf'*
Stettin, *shê'tên'*
Stralsund, *shtrâl'sôot*
Stry, *strê'y'*
Suwalki, *sôo-vâl'kê'*
Swinemünde, *svê'nê-mûn'dê'*
Syedlets (or Siedlee), *syê'd'lyê'tsâ'*
Tabriz, *tâ-brêz'*
Tarnopol, *târ-nô'pôl-y'*
Tarnow, *târ'nôf'*
Tchernavoda (or Cernavoda), *chêr'nâ'vô'dâ'*
Tomasof (or Tomaszow), *tô-mâ'sôof'*
Urmiah (or Urmia, Urumiah), *ôor'mê'â'*
Ūskûp (or Ūskûb, Skopje), *Û-skûp'*
Valjevo (or Valjevo), *vâl'yâ'vô'*
Vistula (or Weichsel), *vîs'tû-lâ'*
Volga, *vôl'gâ'*; *Russ. vôl'gâ'*
Volhynia, *vôl'în'yâ'*
Warta (or Warthe), *vâr'tê'*
Weichsel (or Vistula), *vîk'sêl'*
Yassy (or Jassy), *yâ'sê'*
Zamosk (or Zamość), *zâ'môshch*
Zittau, *tsî'tôu*
Zloczów, *zlô'chôof'*

EASTERN HEMISPHERE



WESTERN HEMISPHERE



a d

Handwritten scribbles

THE WORLD

AN EQUIVALENT PROJECTION

Great Britain	Netherlands
France	Spain
Germany	Portugal
Italy	Denmark
United States	

Islands having foreign possessions are colored in this color scheme is extended to include Africa, Asia, and Oceania.

Telegraph Cables Railroads





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20° 15° 10° 5° 0° 5° 10°

55

50

45

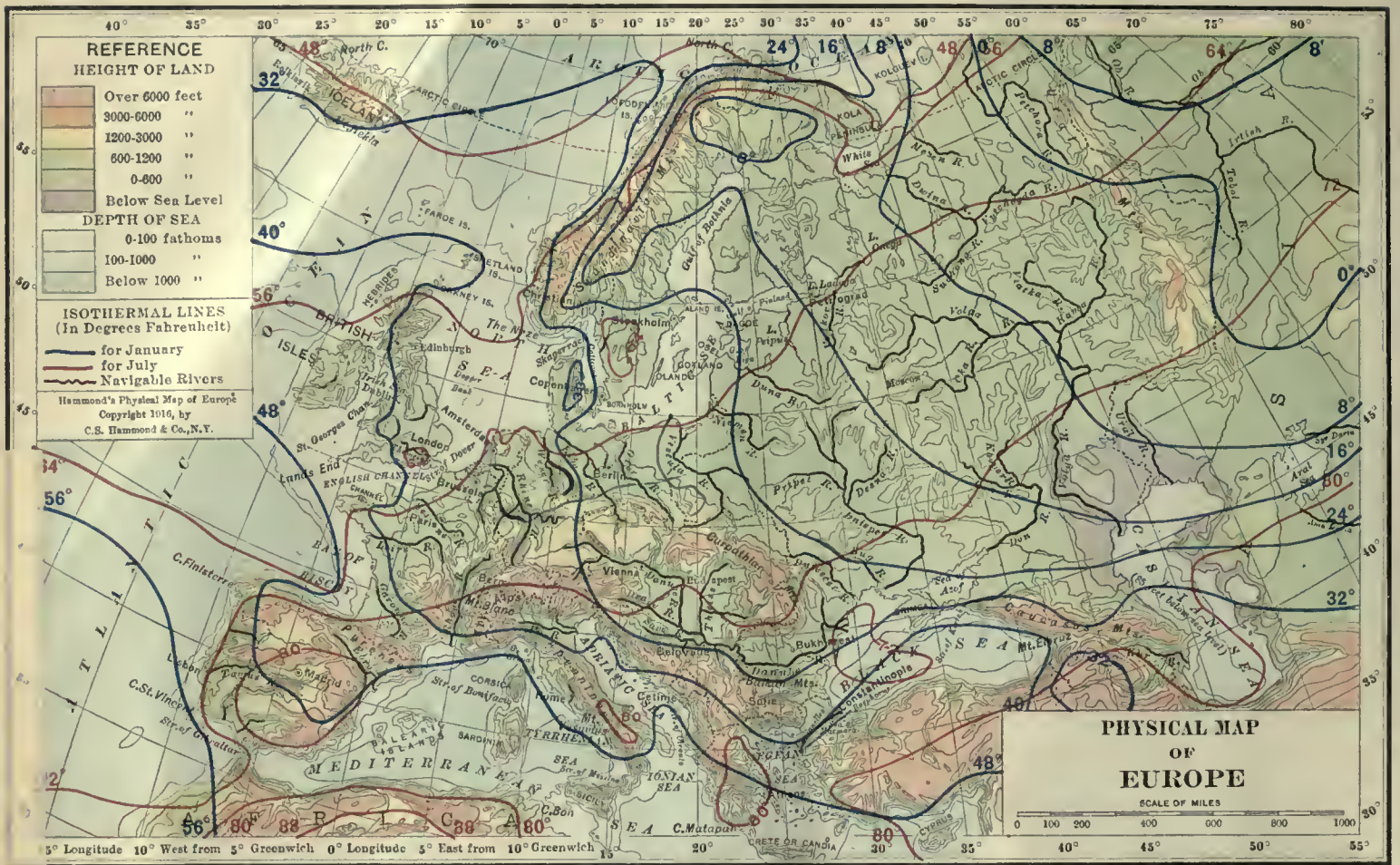
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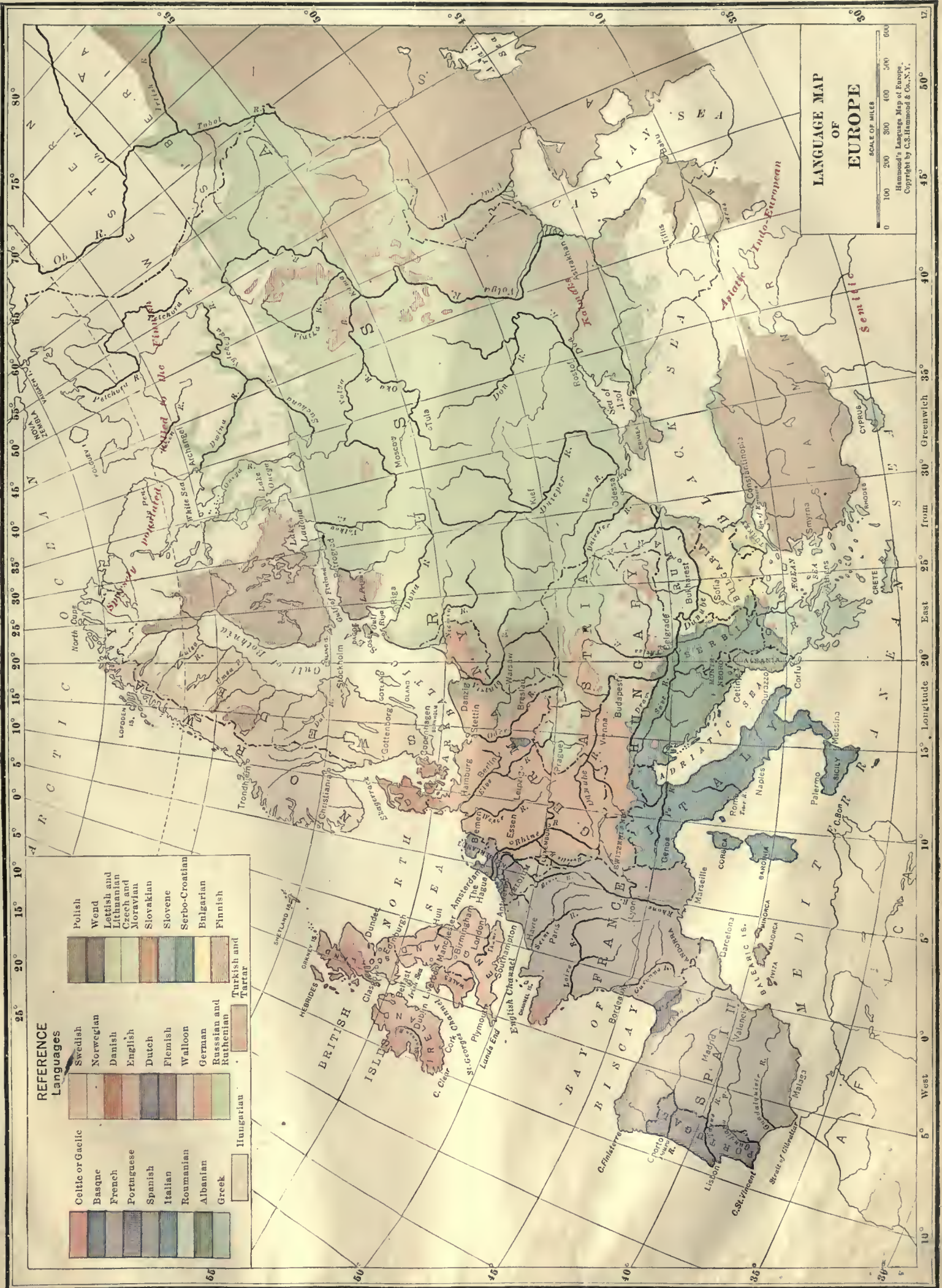
35

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Longitude West 0







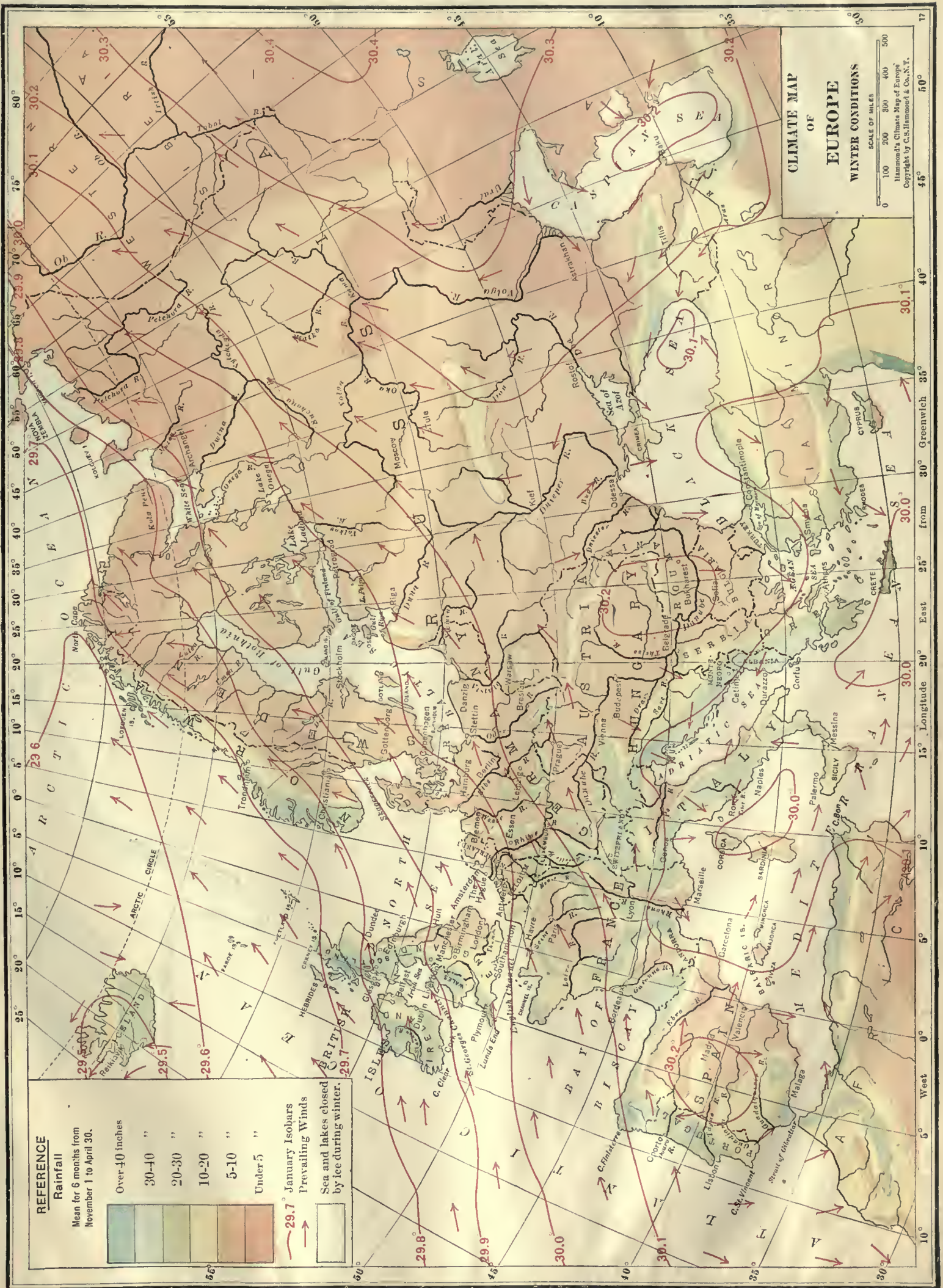
LANGUAGE MAP
OF
EUROPE

SCALE OF MILES
0 100 200 300 400 500 600
Hammond's Language Map of Europe
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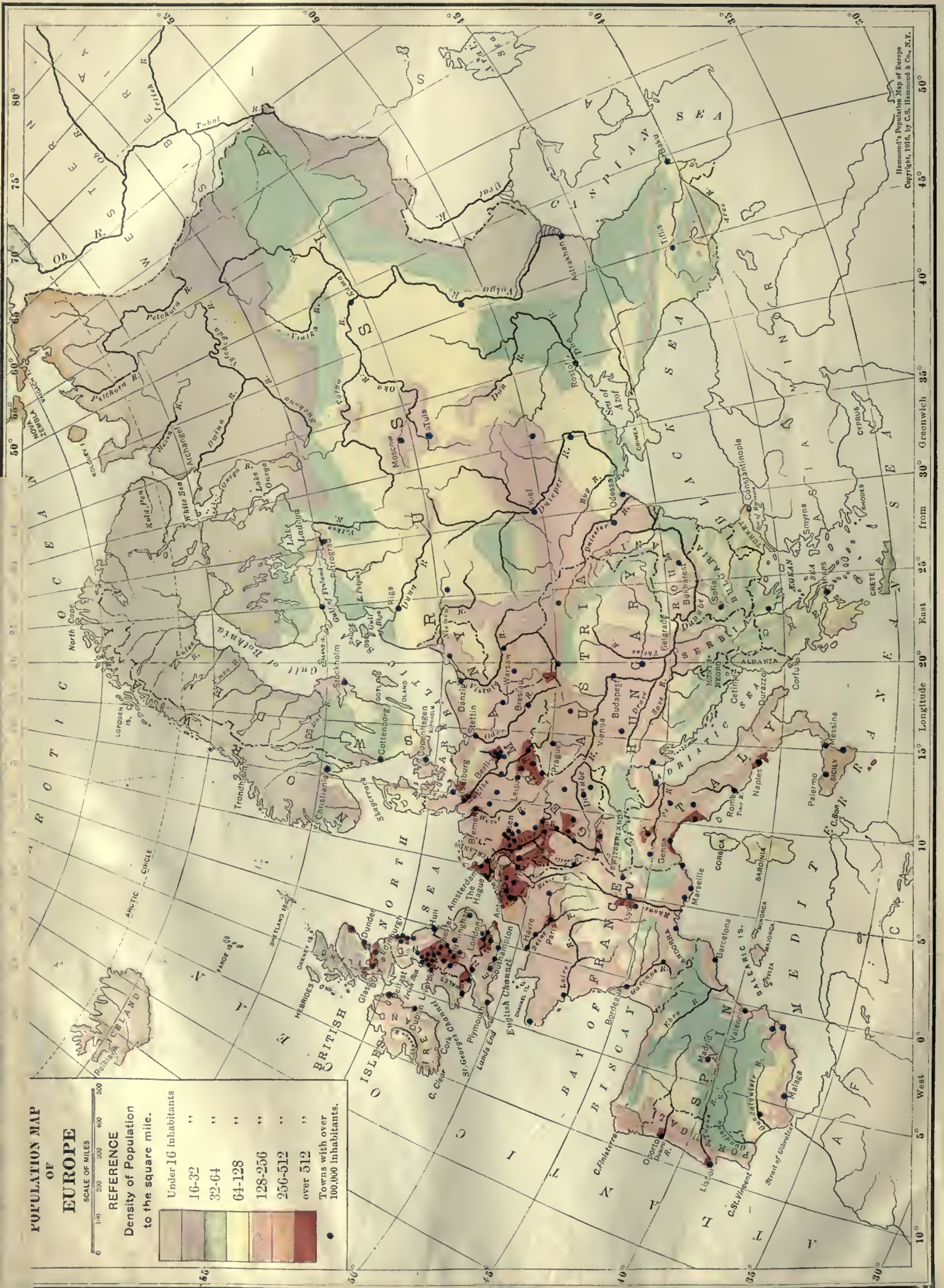
REFERENCE
Languages

Celtic or Gaelic	Swedish	Polish
Basque	Norwegian	Wend
French	Danish	Lettish and Lithuanian
Portuguese	English	Czech and Moravian
Spanish	Dutch	Slovakian
Italian	Flemish	Slovene
Romanian	Walloon	Serbo-Croatian
Albanian	German	Engishan
Greek	Russian and Ruthenian	Finnish
	Hungarian	Turkish and Tartar









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EUROPE

ENGLISH STATUTE MILES
0 100 200 300 400 500

KILOMETERS
0 100 200 300 400 500 600 700 800

Principal water routes

Principal through railroads

Longitude de West 0 East 10 Longitude 20 from G Greenwich 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180

Latitude N 30 40 50 60 70 80 90



20 15° 10° 5° 0° 5° 10°

BRITISH ISLES

ENGLISH CHANNEL

BAY OF BISCAY

IBERIAN PENINSULA

MOUNTAINS OF SPAIN

MADRID

BARCELONA

BALEARIC ISLANDS

MADRID

BARCELONA

IBERIAN PENINSULA

MOUNTAINS OF SPAIN

MADRID

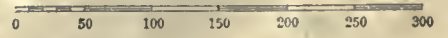
BARCELONA

5° Longitudo West 0 5 10° Longitudo



Central and Western Europe

SCALE OF MILES



- Railroads.....
- Canals.....
- Capitals.....
- Size of type indicates relative importance of places.

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BRITISH ISLES

SCALE OF MILES
0 25 50 100

- Through Railroads
 - Other Railroads
 - Submarine Cables
 - Steamer Routes
- Size of type and town marks indicate relative importance of places, generally as follows:
- 1,000,000 and over ○ LONDON
 - 100,000 to 1,000,000 ○ LIVERPOOL
 - 20,000 to 100,000 ○ Greenock
 - 10,000 to 20,000 ○ Queenstown
 - Under 10,000 ○ Ruthin

ENGLAND AND WALES



Railroads
Submarine Cables
Canals

Size of type indicates relative importance of places



Hemond's 9 x 11 Map of England and Wales
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IRELAND

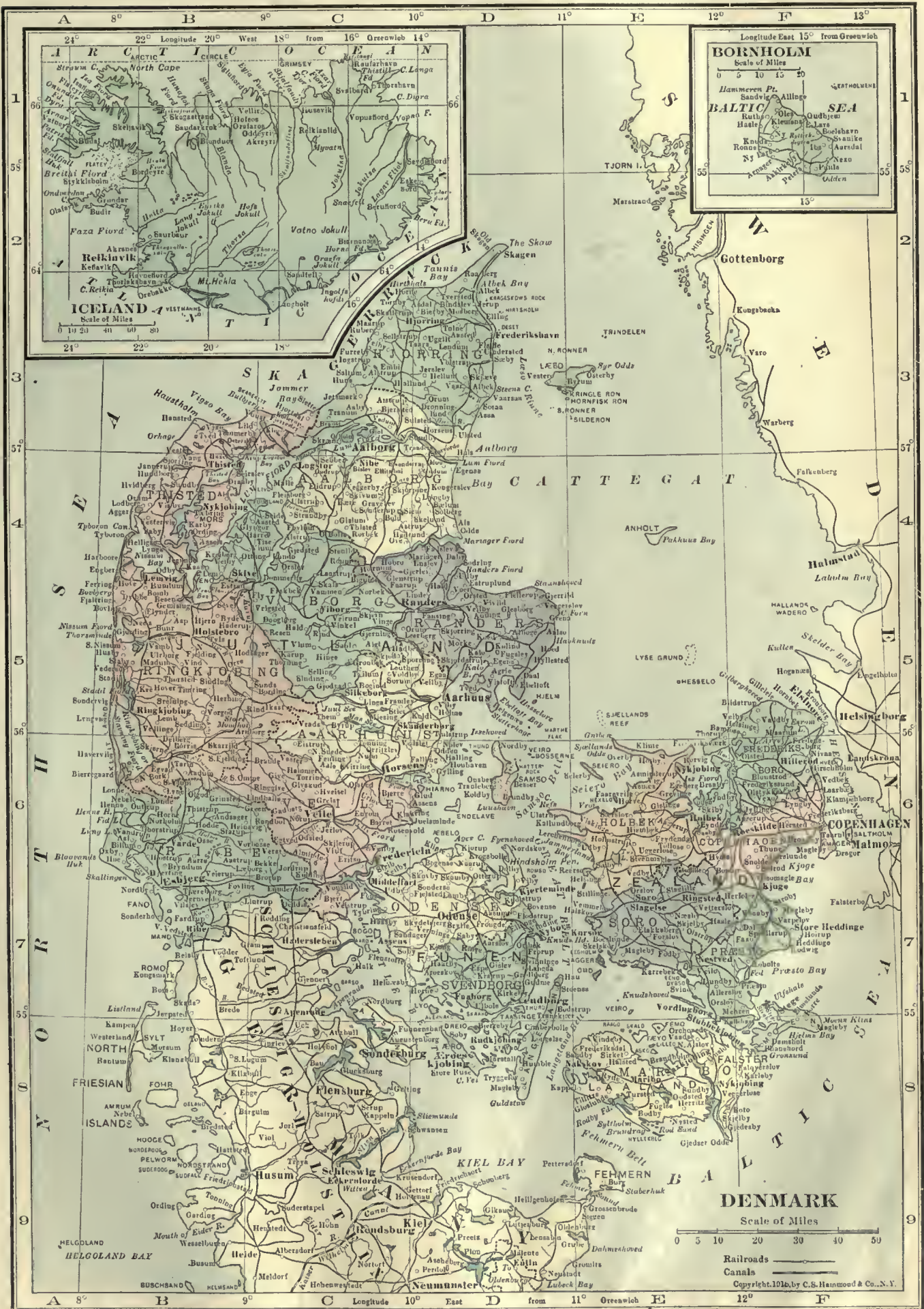
SCALE OF MILES
0 10 20 30 40

- Railroads
- Steamship Routes
- Canals
- Battlefields
- Size of type indicates relative importance of places

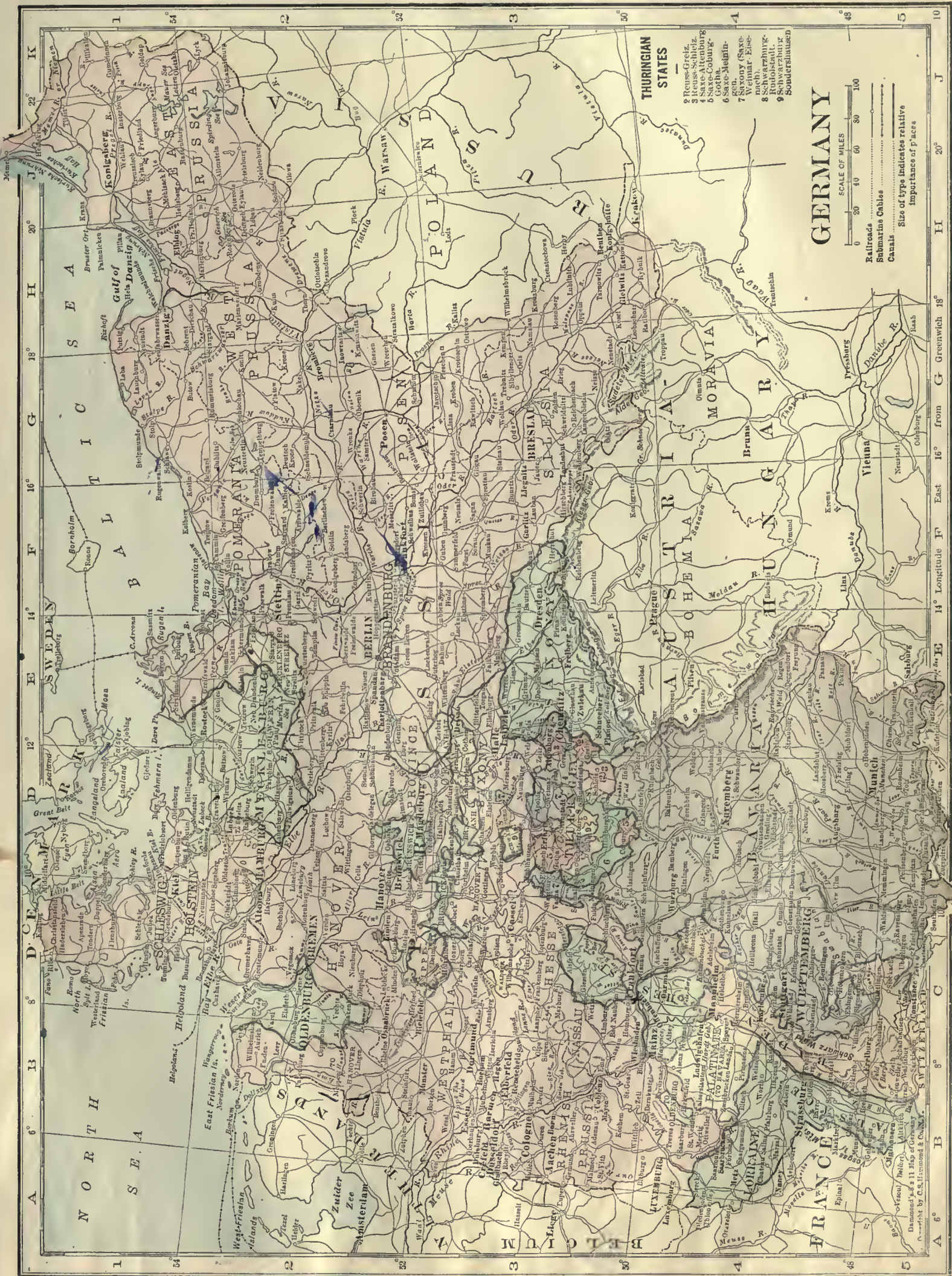
Hammond's 8 x 11 Map of Ireland
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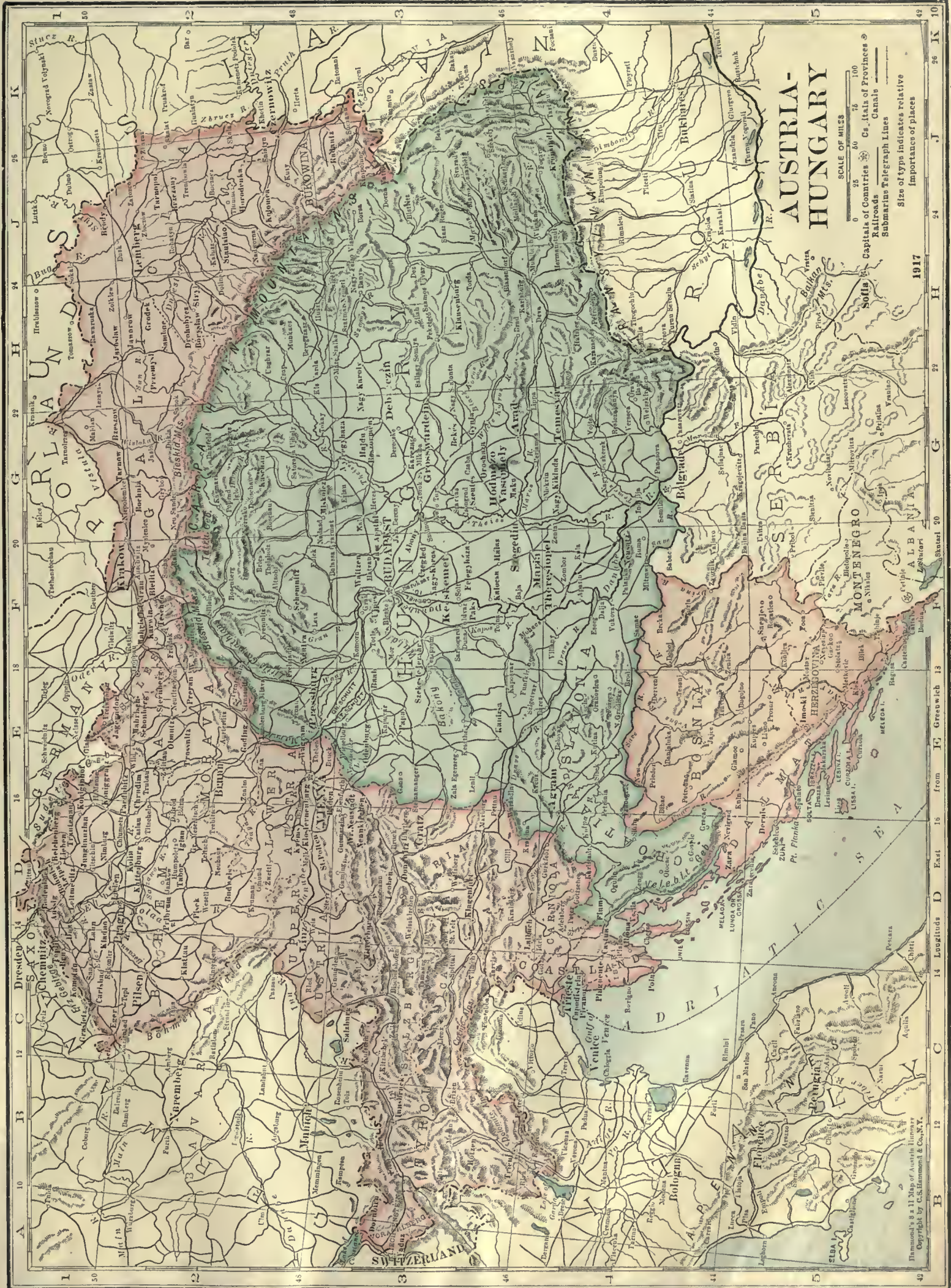












AUSTRIA-HUNGARY

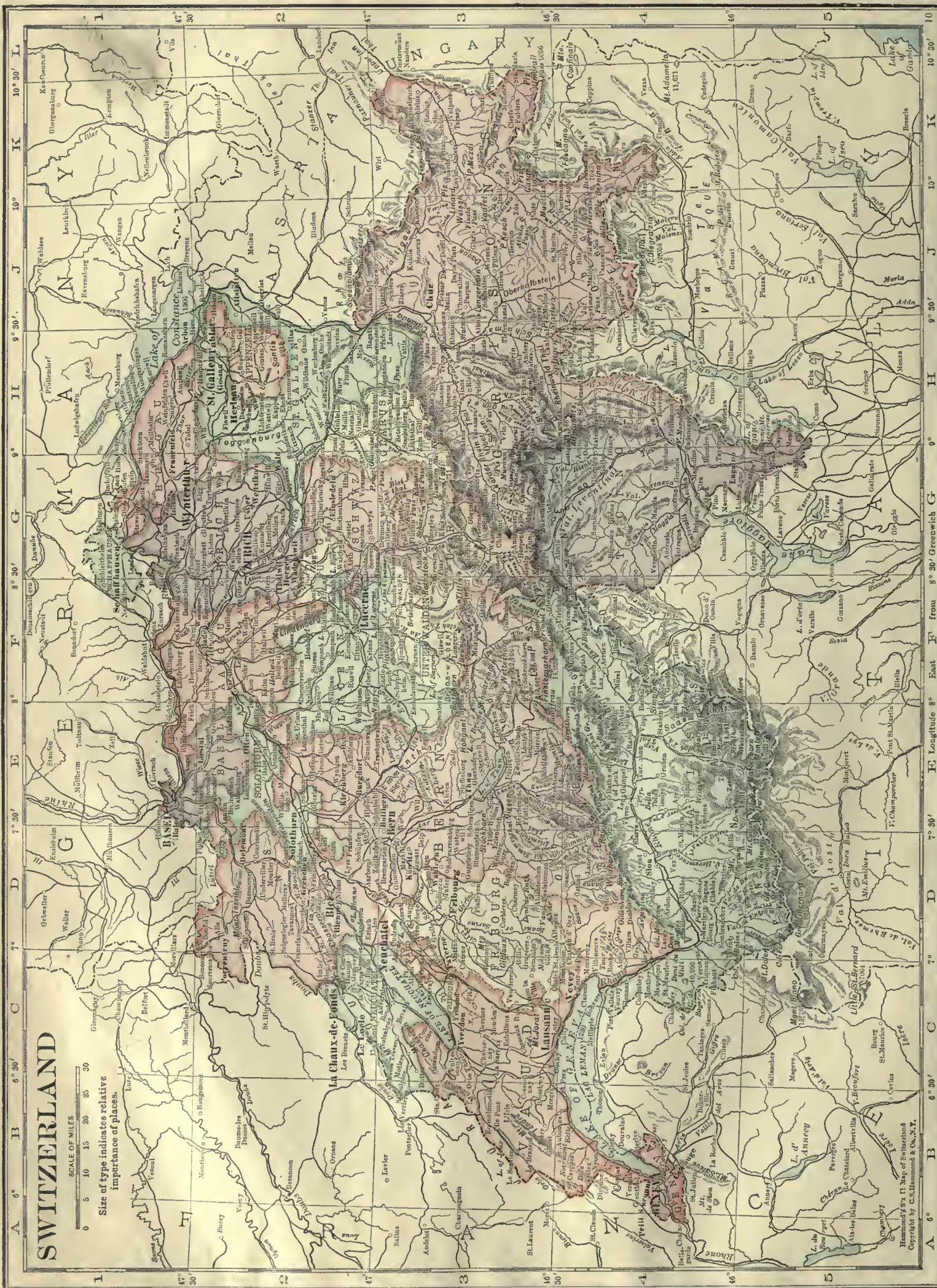
SCALE OF MILES
 0 25 50 75 100

Capitals of Countries
 Seats of Provinces
 Railroads
 Submarine Telegraph Lines
 Canals

Size of type indicates relative importance of places

1917

Hammond's 8 x 11 Map of Austria-Hungary
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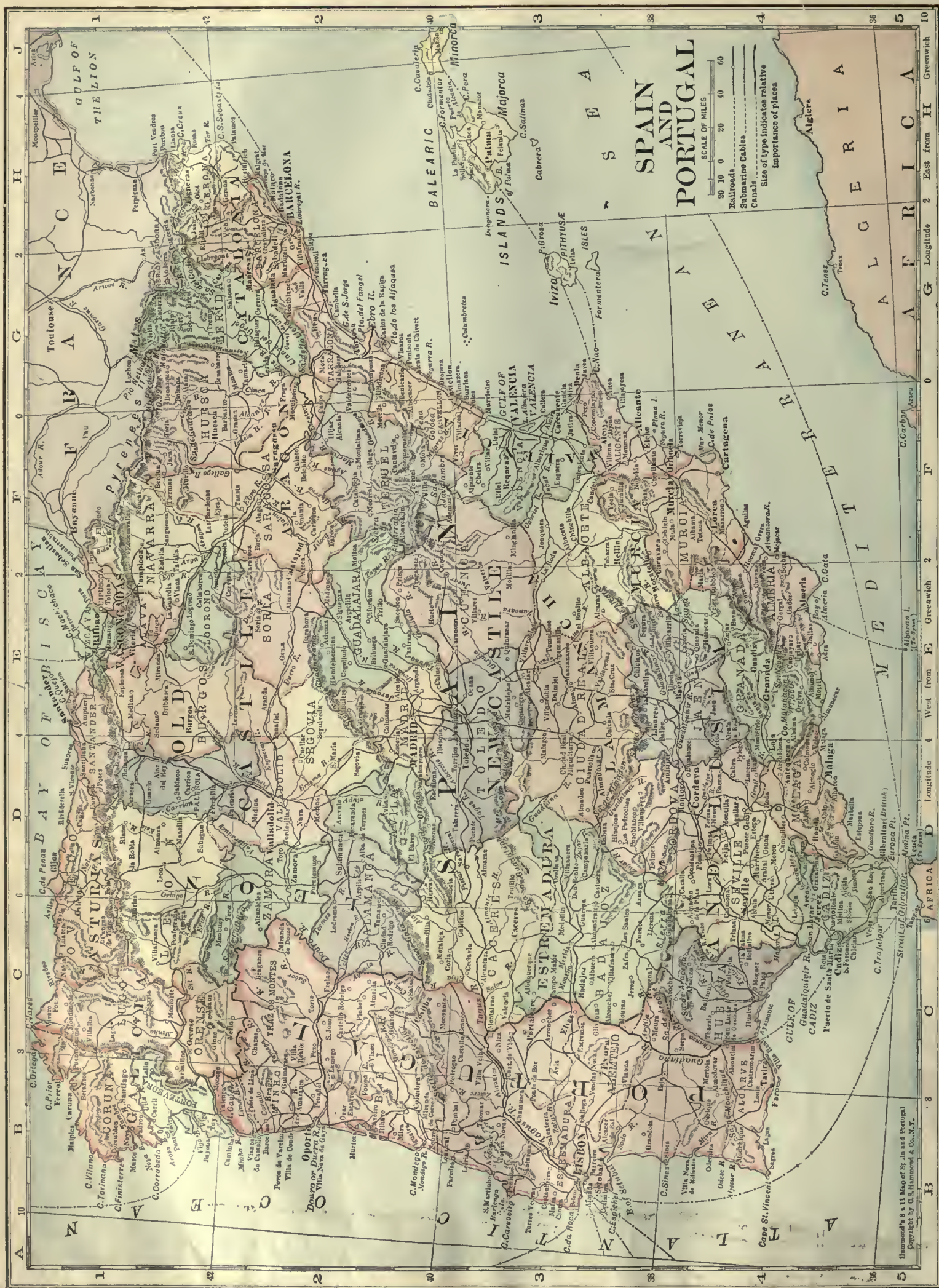
ITALY

SCALE OF MILES
0 10 20 30 40 50 100

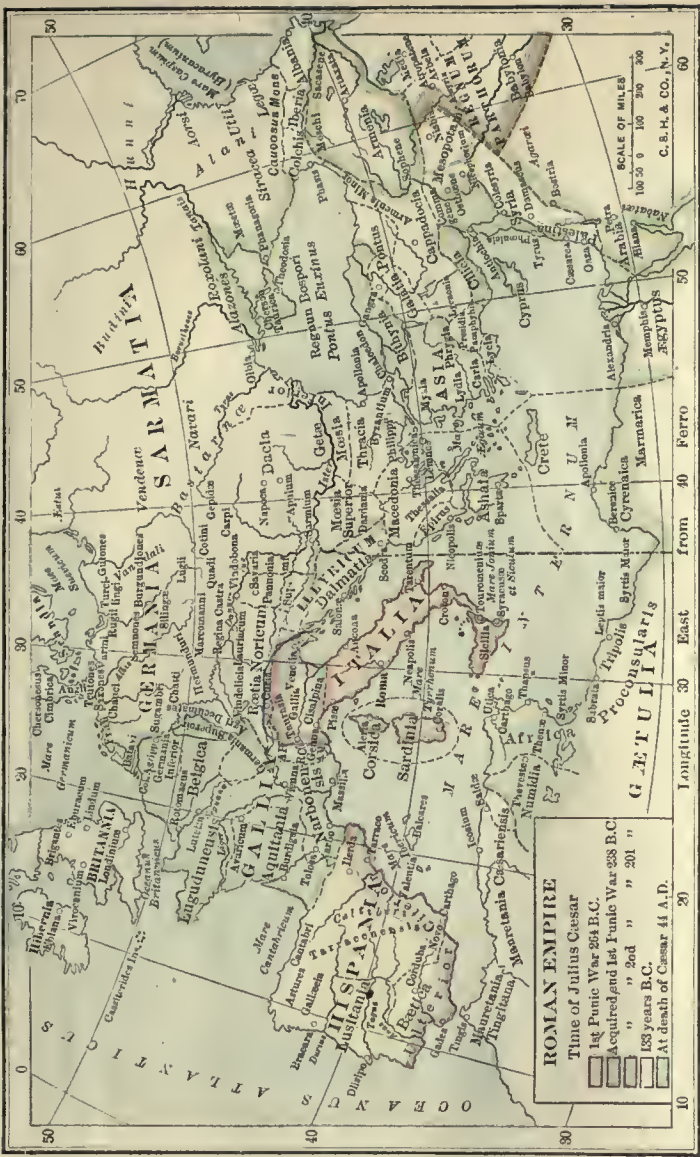
Railroads ———
Submarine Cables ———
Size of type indicates relative importance of places

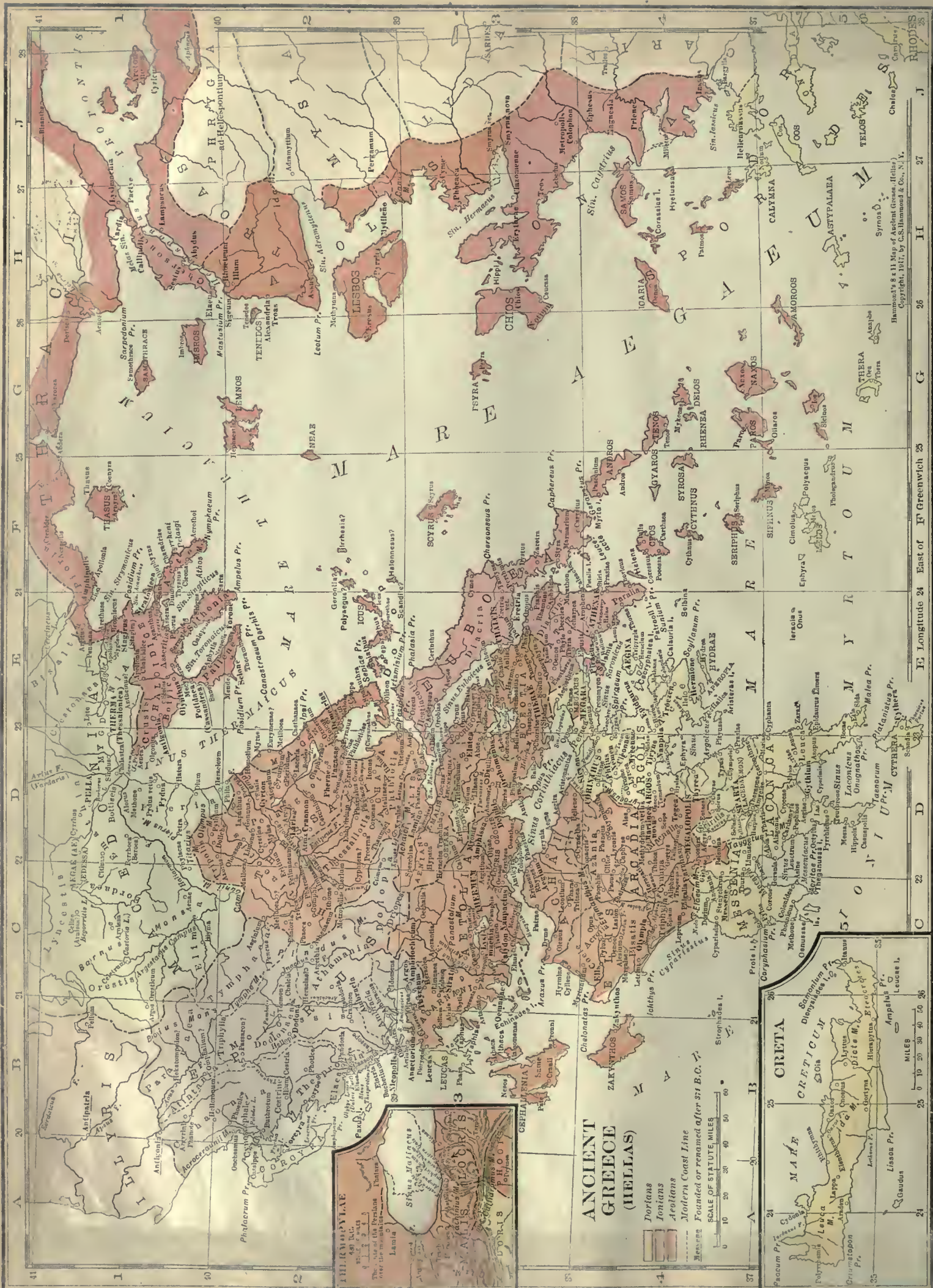
The Kingdom of Italy is divided into 69 Provinces, of which boundaries are shown and capitals of same are designated thus: @; name of Province is in all cases the same as capital towns. The larger divisions, known as Compartimenti, are not now recognized as legal divisions.

Hammond's 8 x 11 Map of Italy
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Hammond's 8 x 11 Map of Spain and Portugal
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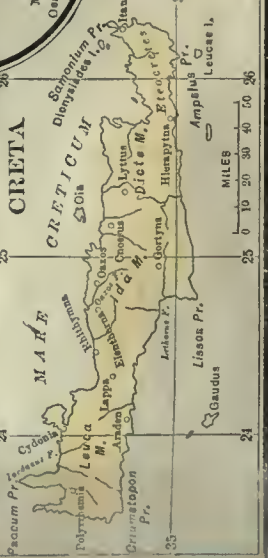
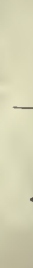
Hammond's & H. Map of Ancient Greece (Hellas)
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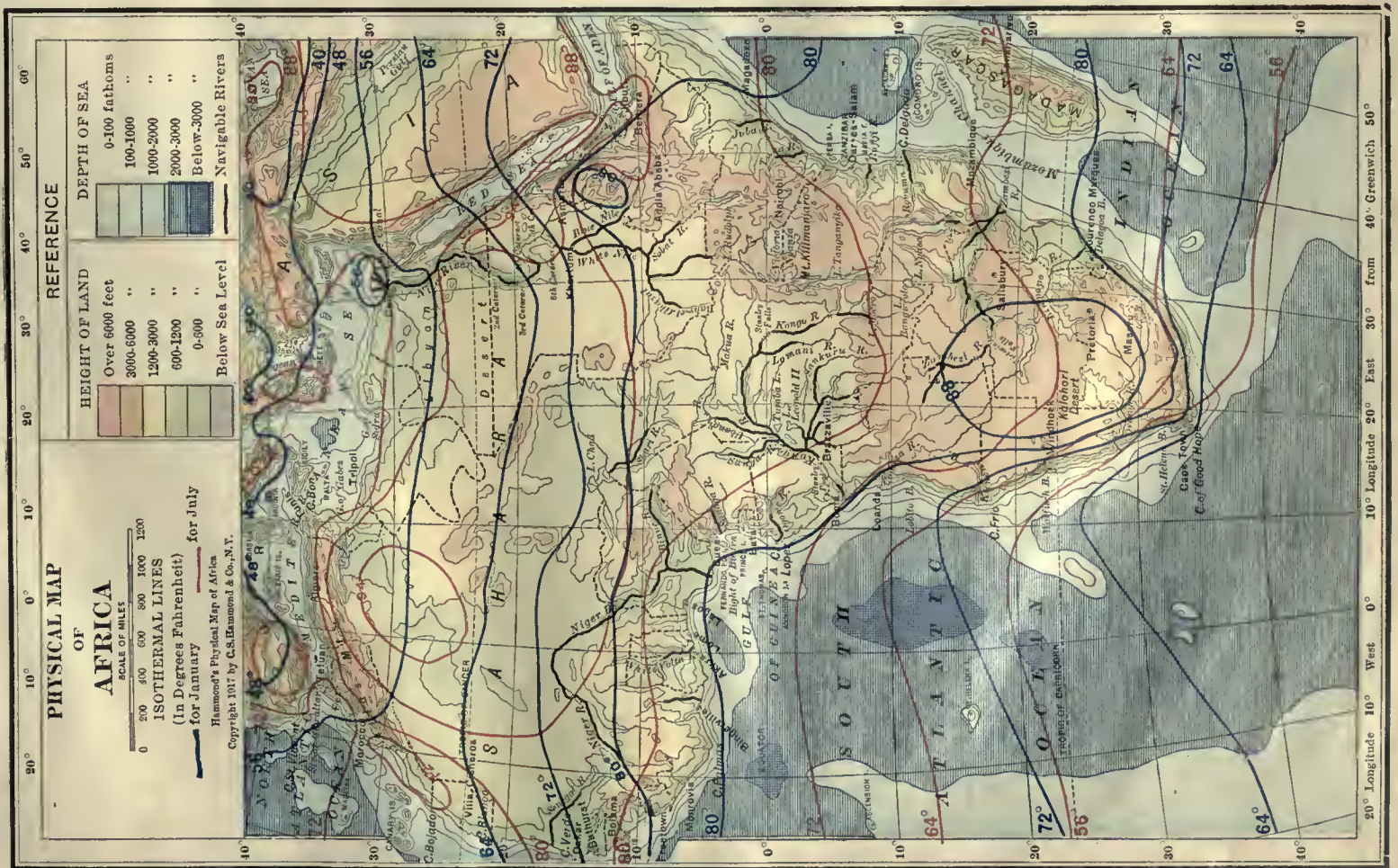
ANCIENT GREECE (HELLAS)

- Dorians
- Ionians
- Aeolians
- Modern Coast Line

Measure Founded or remained after 371 B.C. 7.

SCALE OF STATUTE MILES











**VEGETATION MAP
OF
AFRICA**

SCALE OF MILES
0 100 200 400 600 800

**REFERENCE
Natural Vegetation**

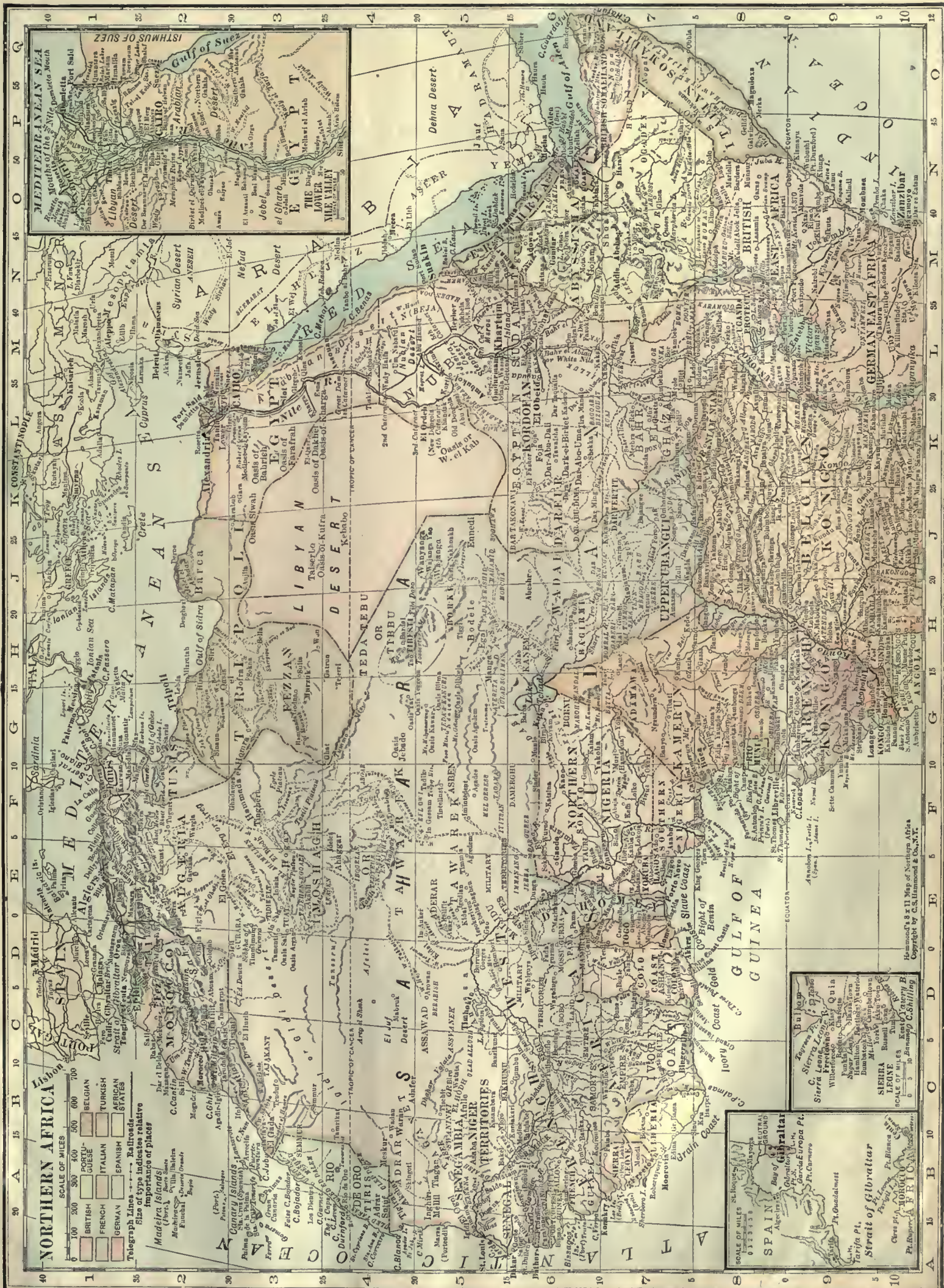
- Alpine Flora
- Temperate Forest
- Evergreen Trees and Shrubs
- Temperate Grasslands
- Semi Desert
- Desert
- Oases and Nile Valley
- Tropical Grasslands
- Equatorial Forest
- Swamp

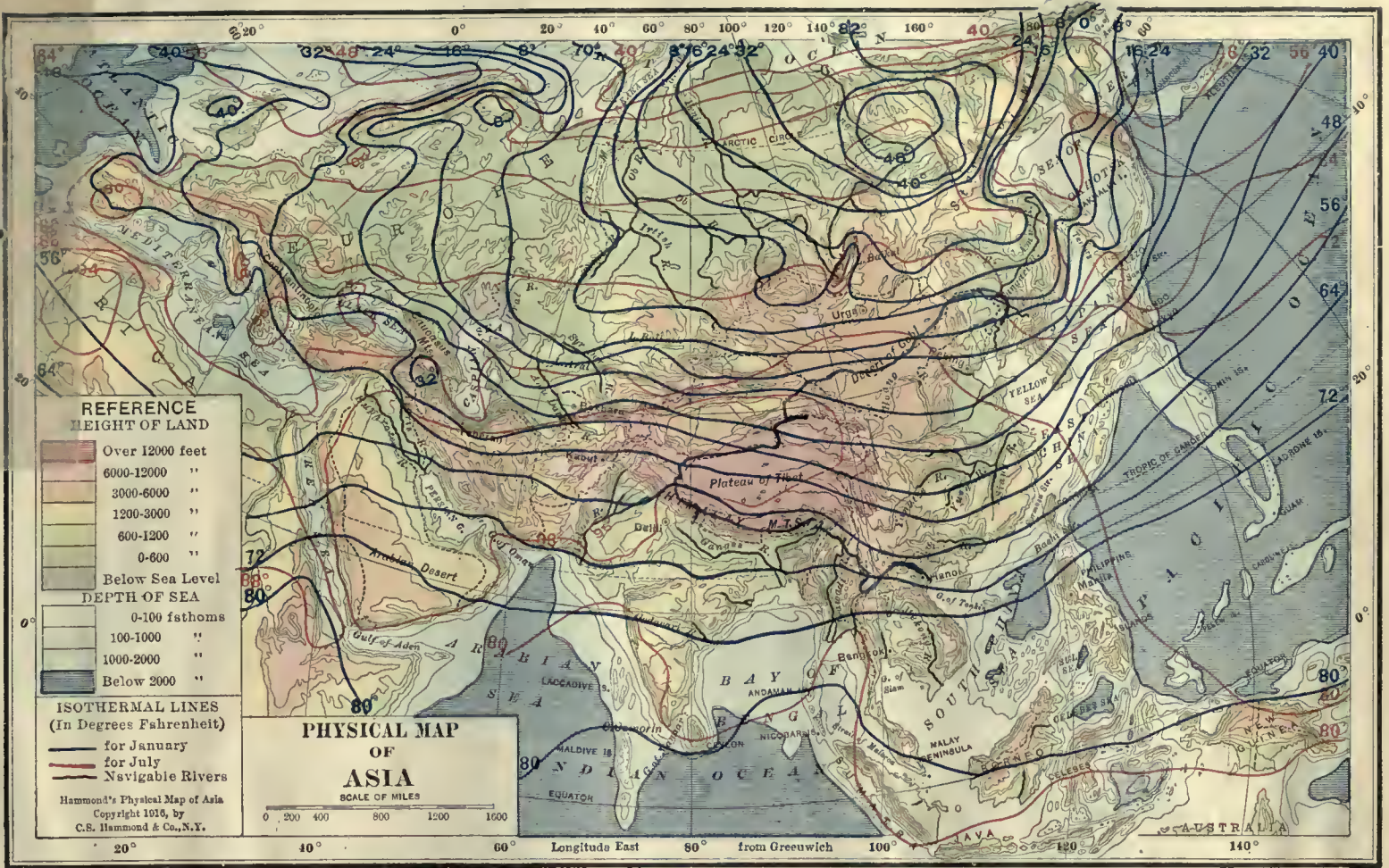
Hammond's Vegetation Map of Africa
Copyright 1917 by C. S. Hammond & Co., N. Y.

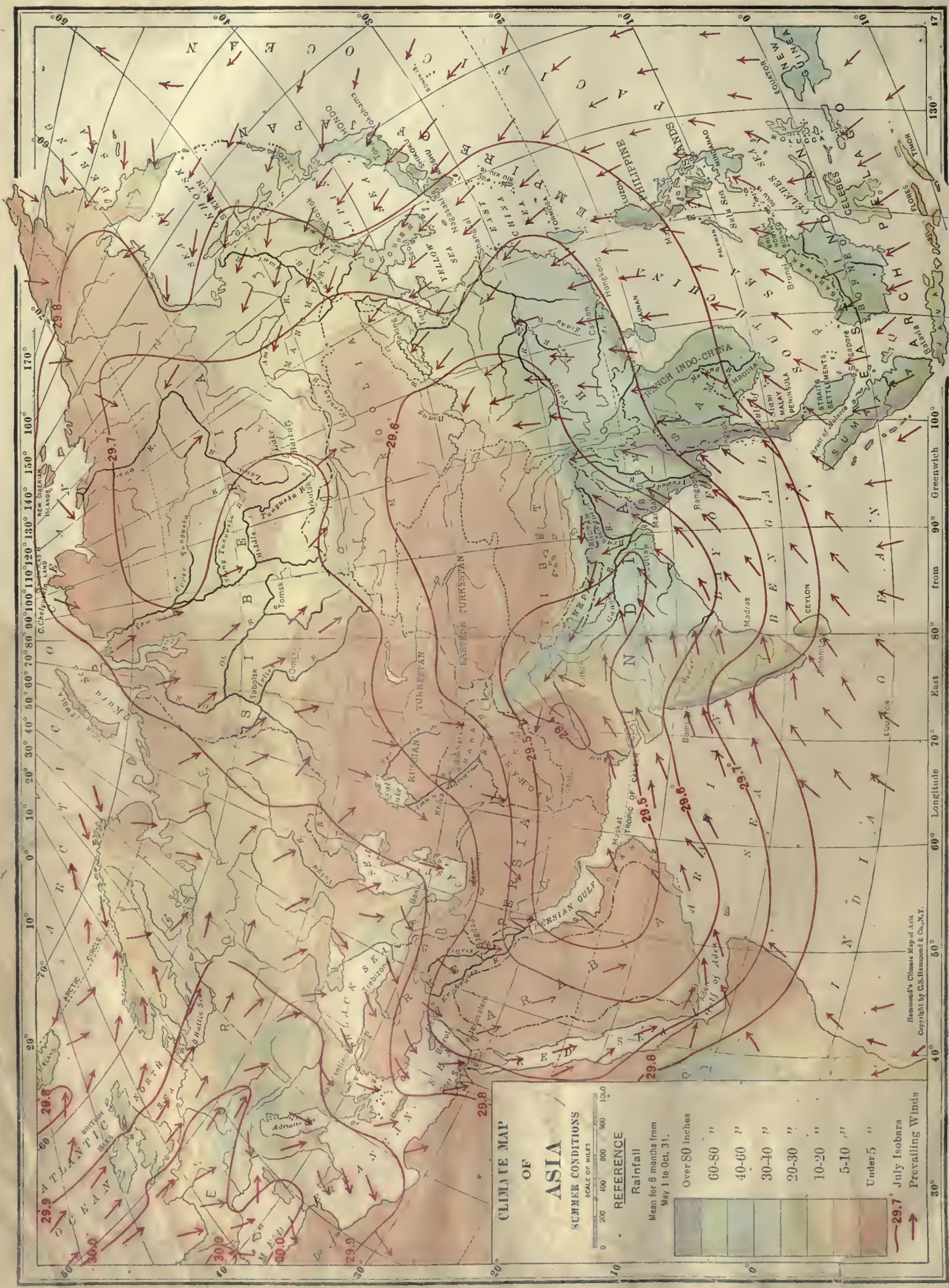
Longitude West 10° from Greenwich 0 10 Longitude 20 East 30 from 40 Greenwich 50











CLIMATE MAP OF ASIA

SUMMER CONDITIONS
 SCALE OF MILES
 0 200 400 600 800 1000

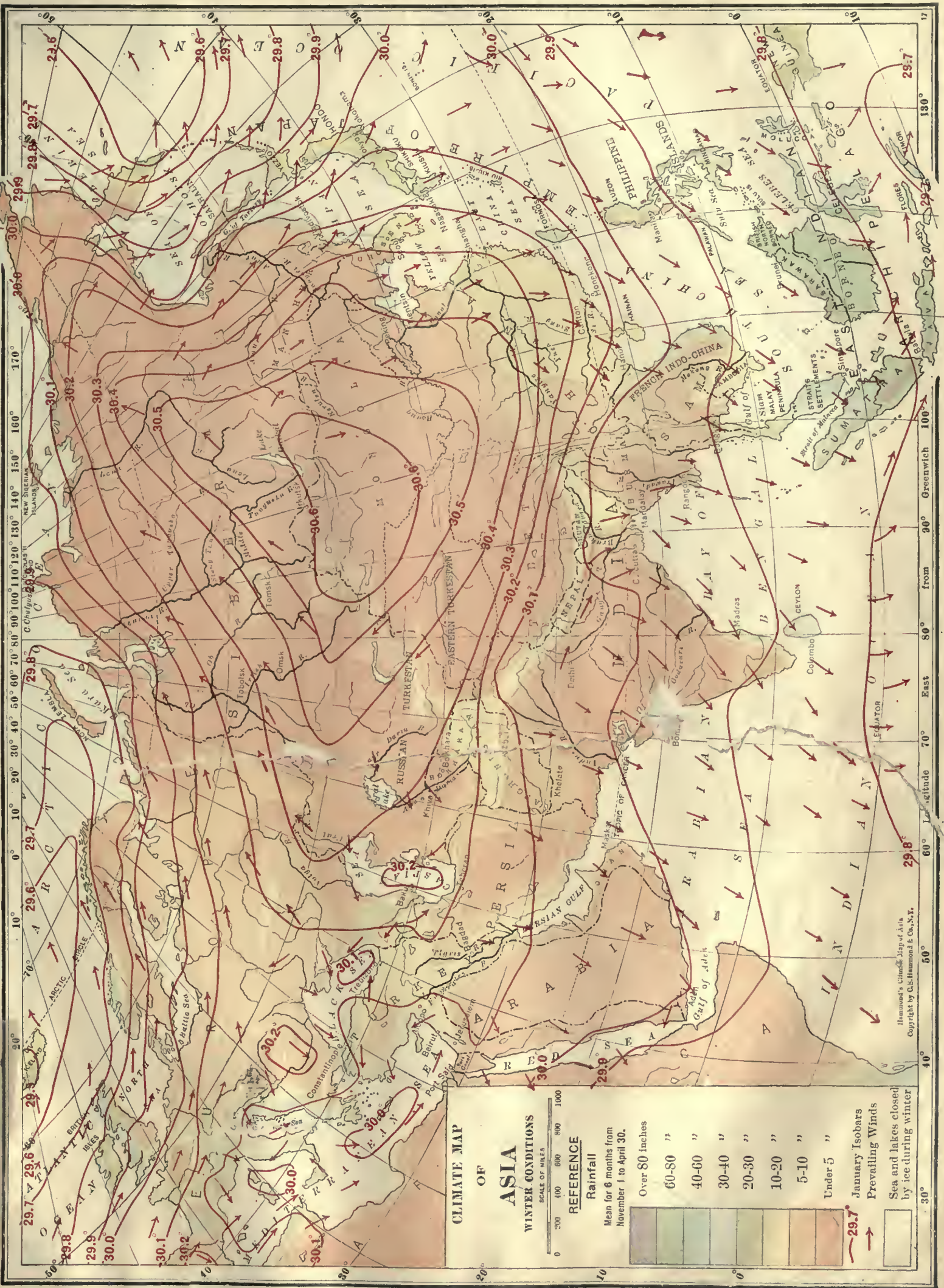
REFERENCE

Rainfall
 Mean for 6 months from May 1 to Oct. 31.

Over 80 inches
60-80 "
40-60 "
30-40 "
20-30 "
10-20 "
5-10 "
Under 5 "

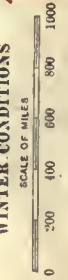
— 29.7 July Isobars
 → Prevailing Winds

Hammond's Climate Map of Asia
 Copyright by C.S. Hammond & Co., N.Y.



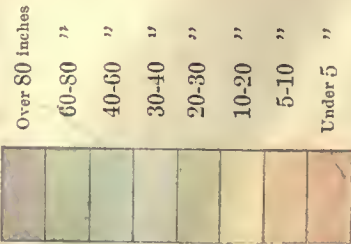
CLIMATE MAP OF ASIA

WINTER CONDITIONS



REFERENCE

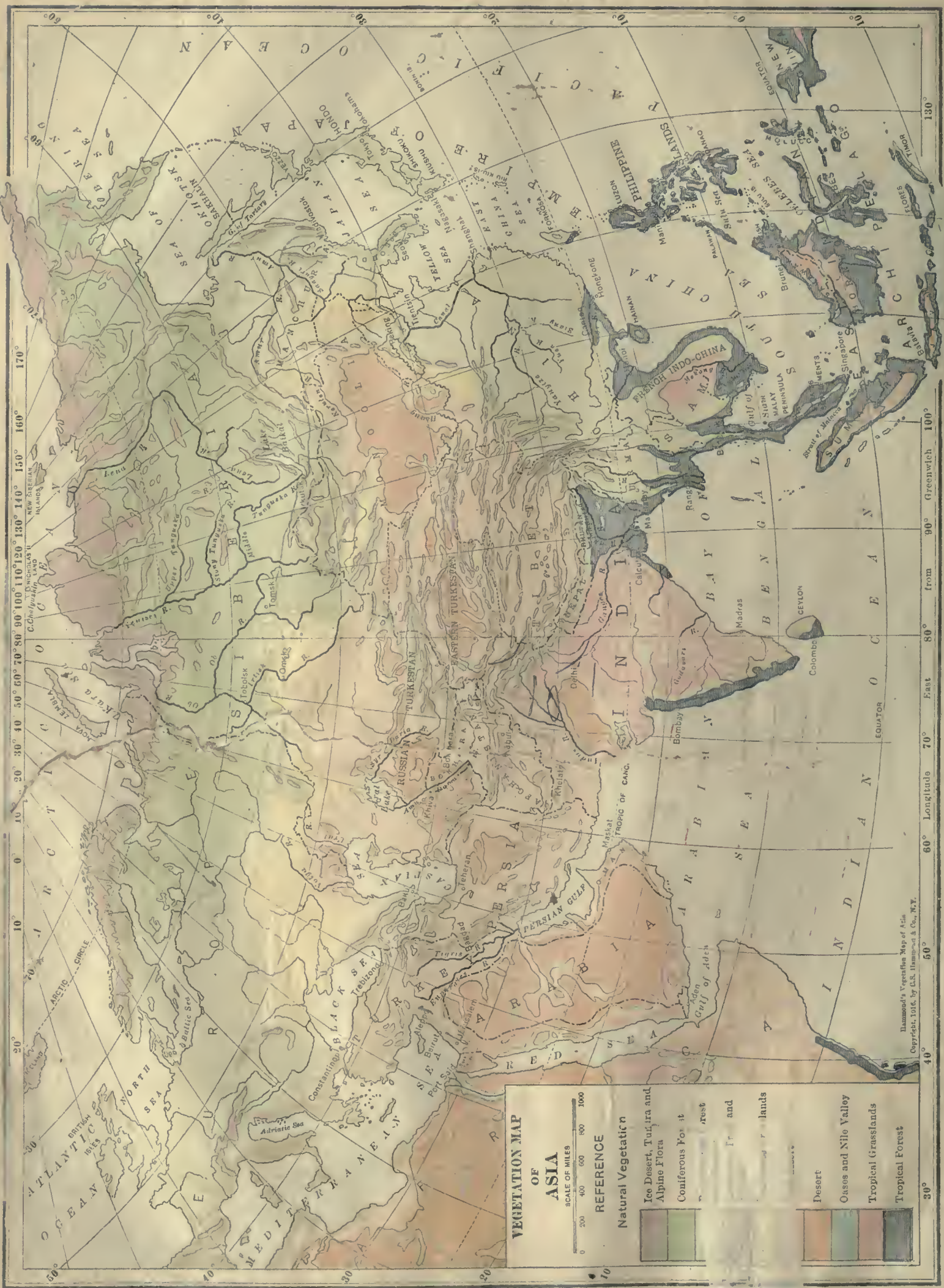
Rainfall
Mean for 6 months from November 1 to April 30.



January Isobars
Prevailing Winds

Sea and lakes closed by ice during winter

Hanneman's Climate Map of Asia
Copyright by C.S. Hanneman & Co., N.Y.



Hammond's Vegetation Map of Asia
 Copyright, 1916, by U.S. Hammond & Co., N.Y.





POPULATION MAP OF ASIA

SCALE OF MILES
0 200 400 600 800 1000

REFERENCE

Density of Population to the square mile.

	Under 16 inhabitants.
	16-32 "
	32-64 "
	64-128 "
	128-256 "
	256-512 "
	over 512 "

Towns with over 100,000 inhabitants.

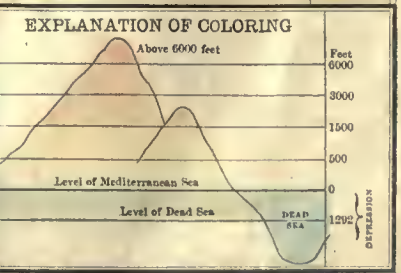
Hammond's Population Map of Asia
Copyright, 1916, by C.B. Hammond & Co., N.Y.



MODERN PALESTINE



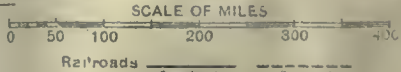
Railroads
 Biblical names are in parentheses (Bethlehem) (R. Jordan)
 Size of type indicates relative importance of places.



Hammond's 8 a 11 Map of Modern Palestine Copyright by C.S. Hammond & Co., N.Y.



ARABIA
Showing the
KINGDOM OF HEJAZ



Hammond's 8 x 11 Map of Arabia
Copyright by C.S. Hammond & Co., New York



PERSIA, AFGHANISTAN AND BALUCHISTAN

SCALE OF MILES

Size of type indicates relative importance of places

Railroads

Drawn by 8 x 11 Map of Persia, Afghanistan, and Baluchistan. Copyright by C.S. Hammond & Co., N.Y.









JAPAN

SCALE OF MILES
0 100 200 300
Capital of Country. Treaty Ports. Wigo
Railroads. Proposed Railroads.
Fortifications. Navy and Marine Cable
Principal Water Routes with Distances in Nautical Miles. 200

Copyright by C.S. Hammond & Co., N.Y.

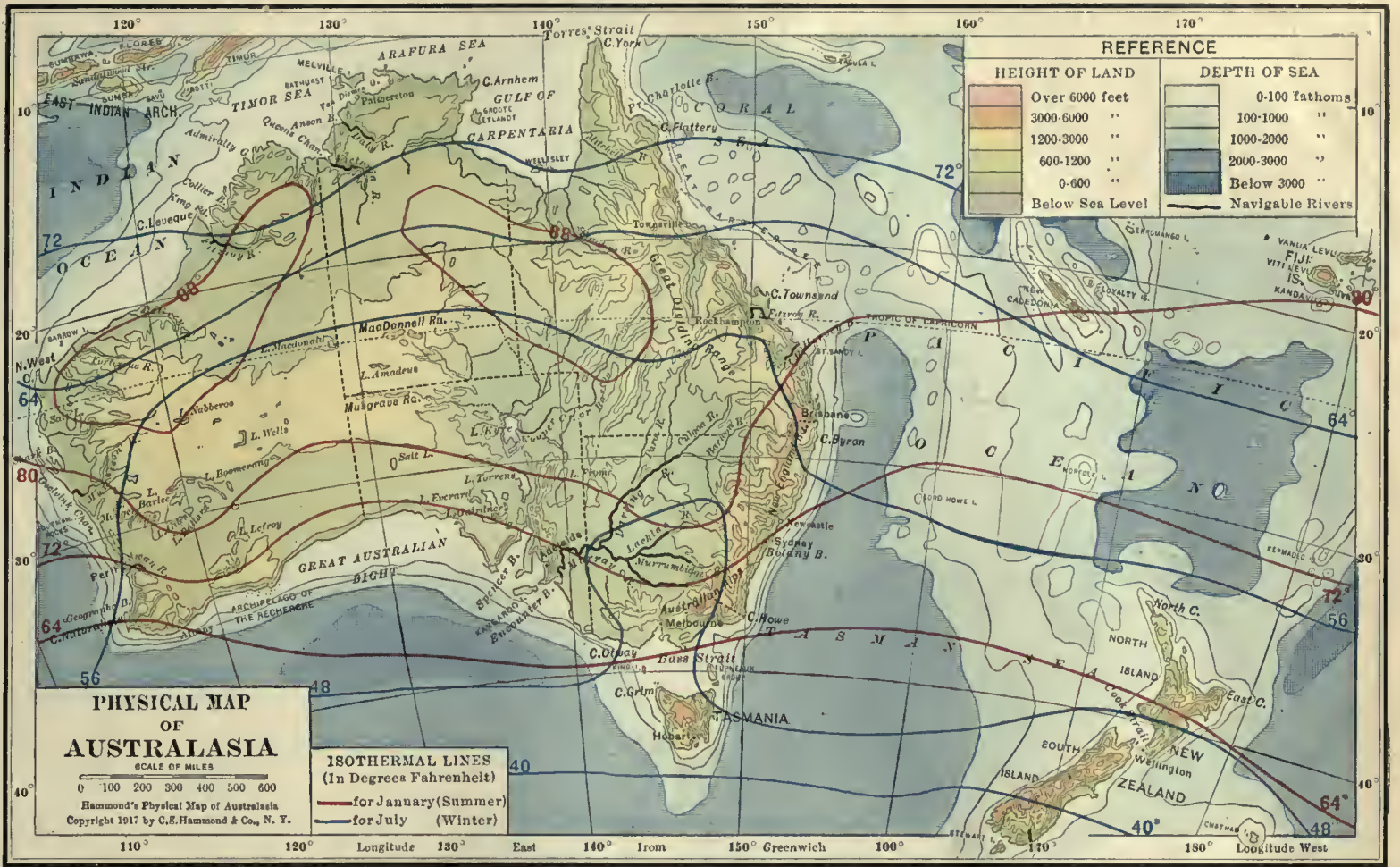


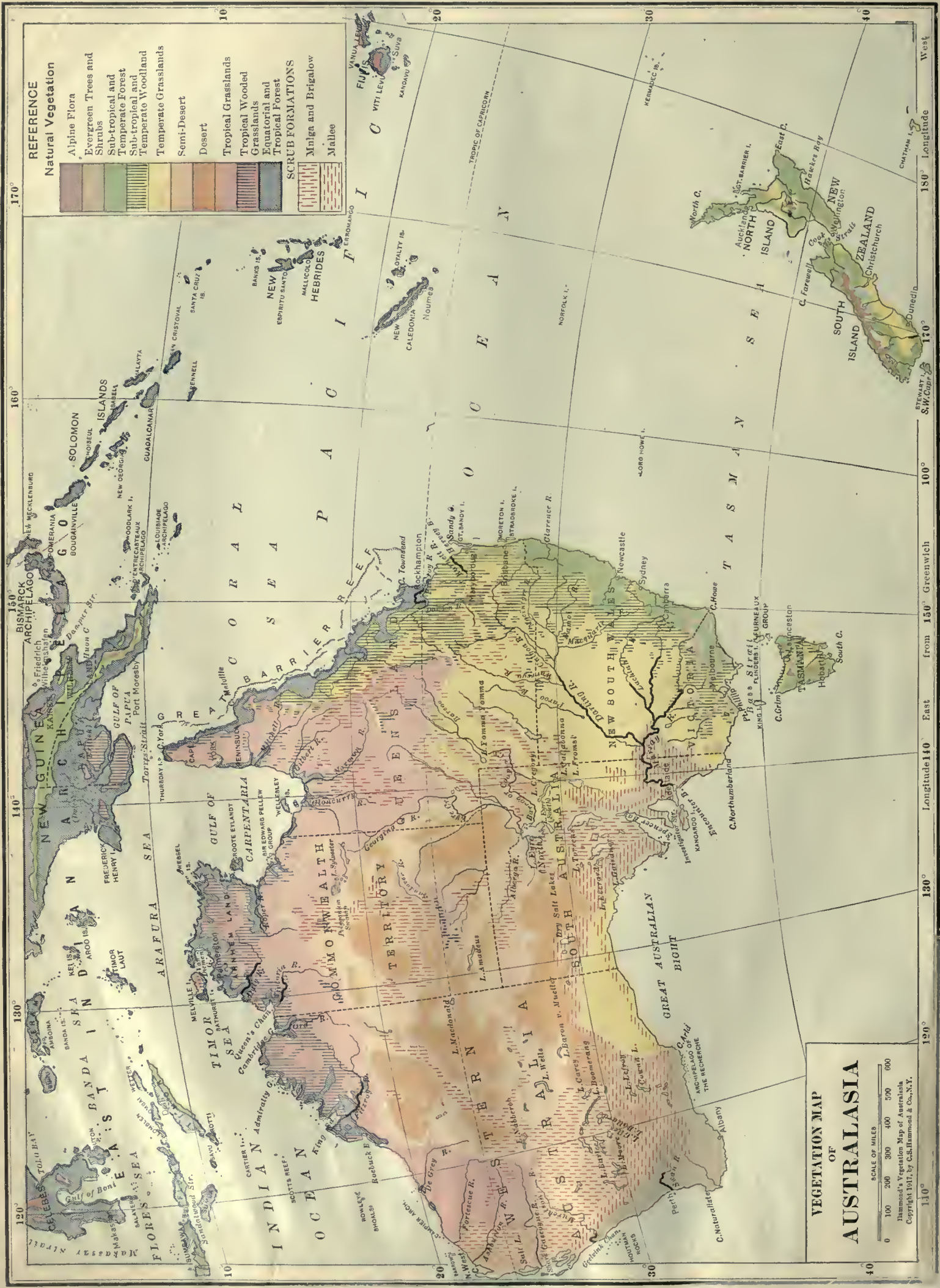
SCALE OF MILES
 0 100 200 300 400 500

Capital of Country
 Capital of Province

Treaty Ports
 Railroads
 Proposed Railroads
 Submarine Cables

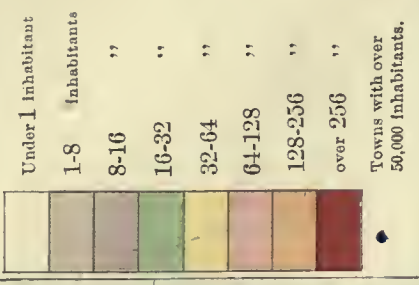
Hammond & S. J. Map of China, Japan and Korea
 Copyright by C. Hammond & Co., N.Y.



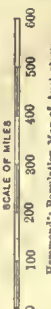




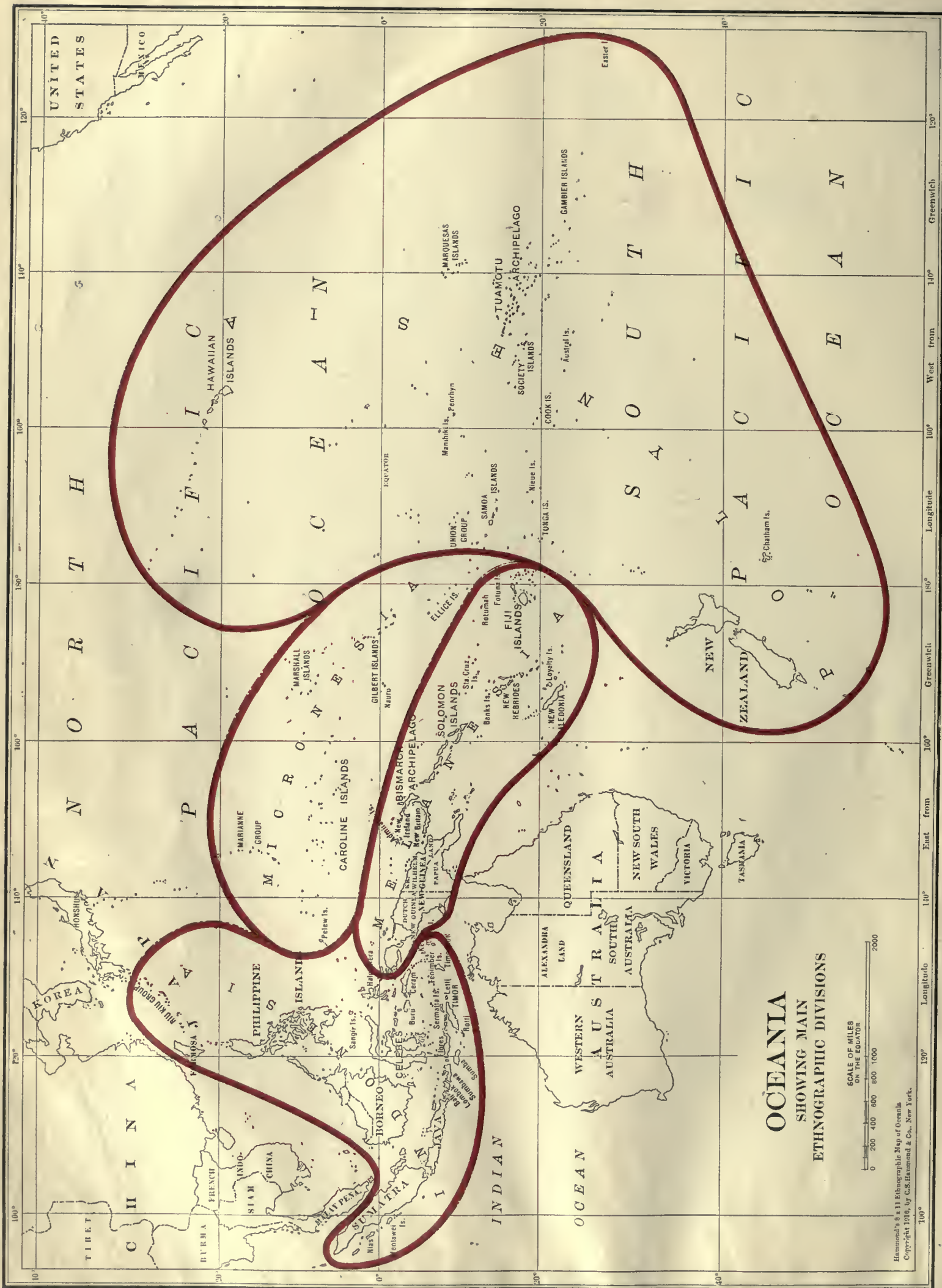
REFERENCE
Density of Population
to the square mile.



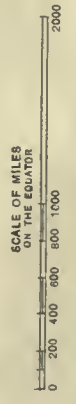
**POPULATION MAP
OF
AUSTRALASIA**



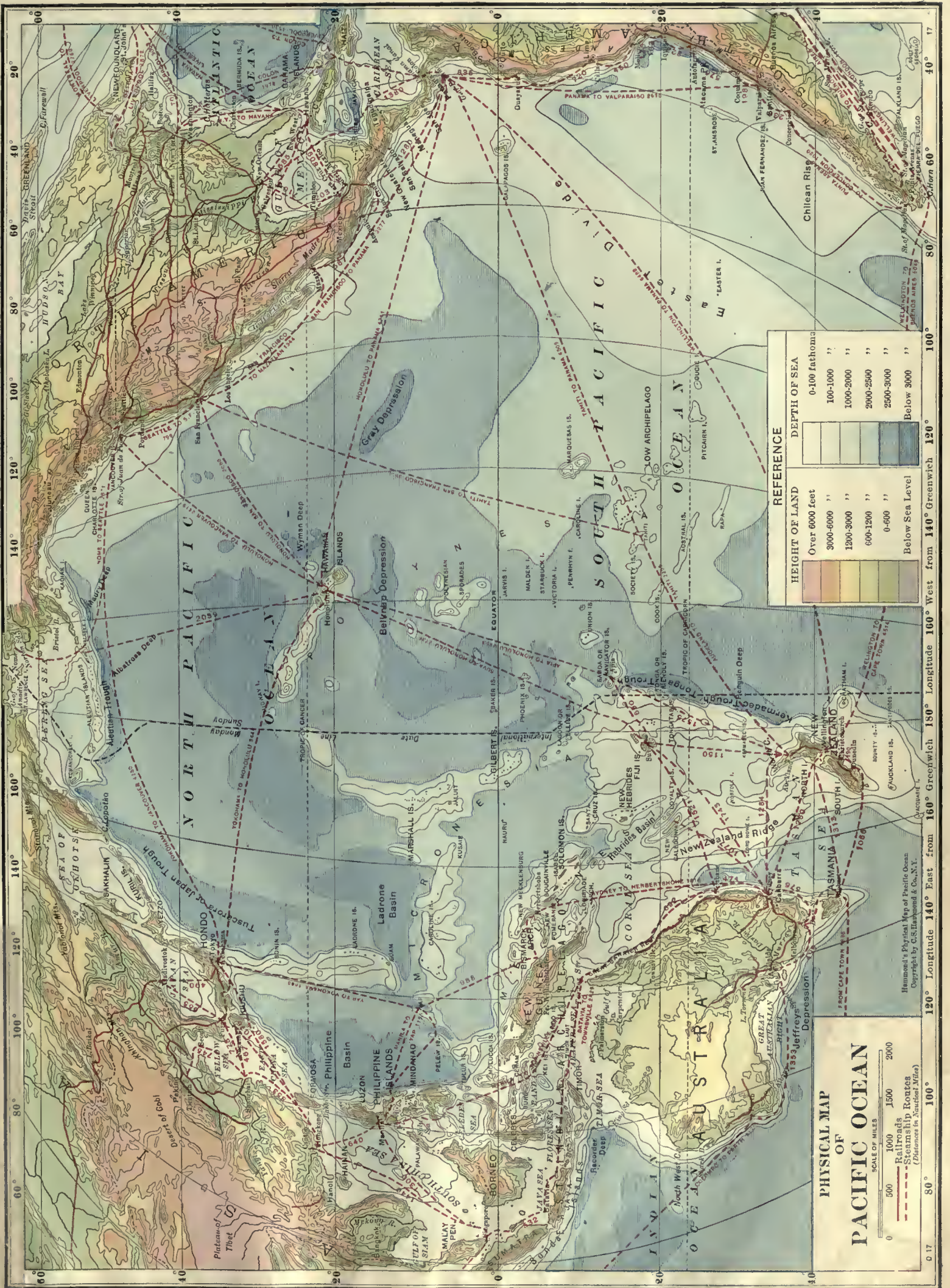
Hammond's Population Map of Australasia
Copyright 1911, by C.S. Hammond & Co., N.Y.



OCEANIA
 SHOWING MAIN
 ETHNOGRAPHIC DIVISIONS



Hammond's 8 x 11 Ethnographic Map of Oceania
 Copyright 1916, by C.S. Hammond & Co., New York.





10° M 130° N 120° O 110° P 100° Q 90° R 80° S 70° T 60° U 50° V



NORTH PACIFIC OCEAN

WITH

THE UNITED STATES AND INSULAR TERRITORIES

- United States and Insular Territories
- Japan and its Possessions
- British Possessions
- Railroads
- Submarine Cables
- Steamship Routes with Distances
- Mail routes with duration of passage

Copyright by C.S. Hammond & Co., N.Y.

130° N 120° O 110° P 100° Q 90° R 80° S 70° T 60° U 50° V

G 157°30' H 157° I 156°30' J 156° K 155°30' L 155° M

INTER-ISLAND DISTANCES BY SEA IN SEA MILES.

AROUND OAHU FROM HONOLULU—ESPLANADE WHARF TO

	MILES.		MILES.
Bell Buoy.....	1 1/4	Pearl River Bar.....	6
Diamond Head.....	5	Barber's Point.....	15
Koko Head.....	12	Waianae Anchorage.....	26
Makapuu Point.....	16	Kaena Point, N. W. of Oahu.....	36
Mokapu.....	27	Waialua Anchorage.....	46
Kahuku North Point.....	48	Kahuku N. Pt., Oahu, via Kaena.....	58

HONOLULU TO

Lae o ka Laan, S. W. Pt. Molokai.....	35	Kawaihae, Hawaii.....	144
Kalaupapa, Leper Settlement.....	52	Kealakekua, Hawaii (direct).....	157
West Point of Lanai.....	50	Kealakekua, Hawaii (via Kawaihae).....	186
Lahaina, Maui.....	72	S. W. Pt. Hawaii (via Kawaihae).....	233
Kahului, Maui.....	90	Punaluu, Hawaii.....	250
Hana, Maui.....	128	Hilo, Hawaii (direct).....	102
Maalaea, Maui.....	86	Hilo, Hawaii (windward).....	206
Makena, Maui.....	96	Hilo, Hawaii (via Kawaihae).....	230
Mahukona, Hawaii.....	134		

HONOLULU TO

Nawiliwili, Kauai.....	98	Hanalei, Kauai.....	125
Koloa, Kauai.....	102	Niihau.....	144
Waimea, Kauai.....	120		

LAHAINA, MAUI, TO

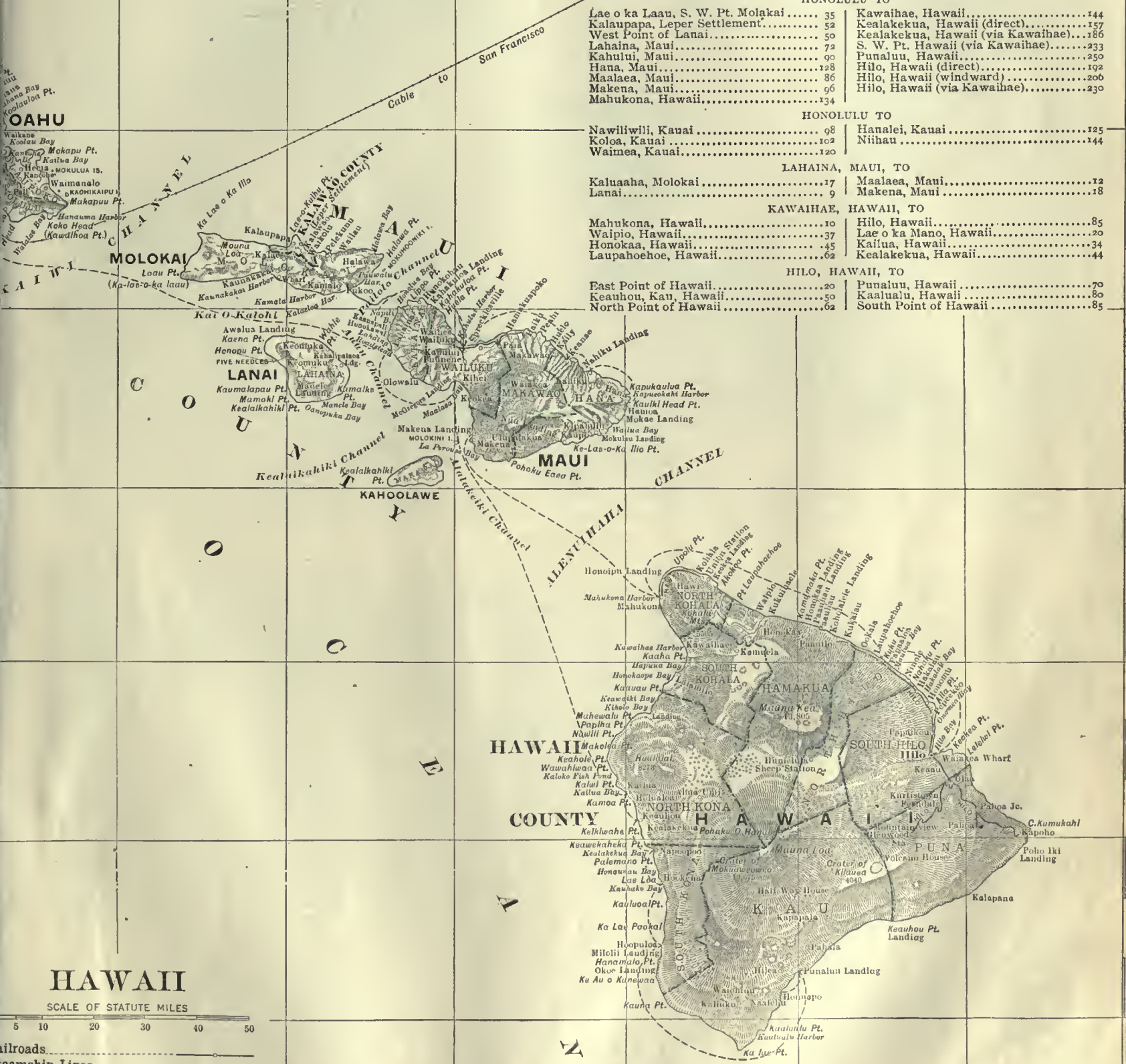
Kaluuaha, Molokai.....	17	Maalaea, Maui.....	12
Lanai.....	9	Makena, Maui.....	18

KAWAIIHAE, HAWAII, TO

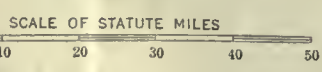
Mahukona, Hawaii.....	10	Hilo, Hawaii.....	85
Waipio, Hawaii.....	37	Lae o ka Mano, Hawaii.....	20
Honokaa, Hawaii.....	45	Kaifuu, Hawaii.....	34
Laupahoehoe, Hawaii.....	62	Kealakekua, Hawaii.....	44

HILO, HAWAII, TO

East Point of Hawaii.....	20	Punaluu, Hawaii.....	70
Keauhou, Kau, Hawaii.....	50	Kaaluauu, Hawaii.....	80
North Point of Hawaii.....	62	South Point of Hawaii.....	85



HAWAII



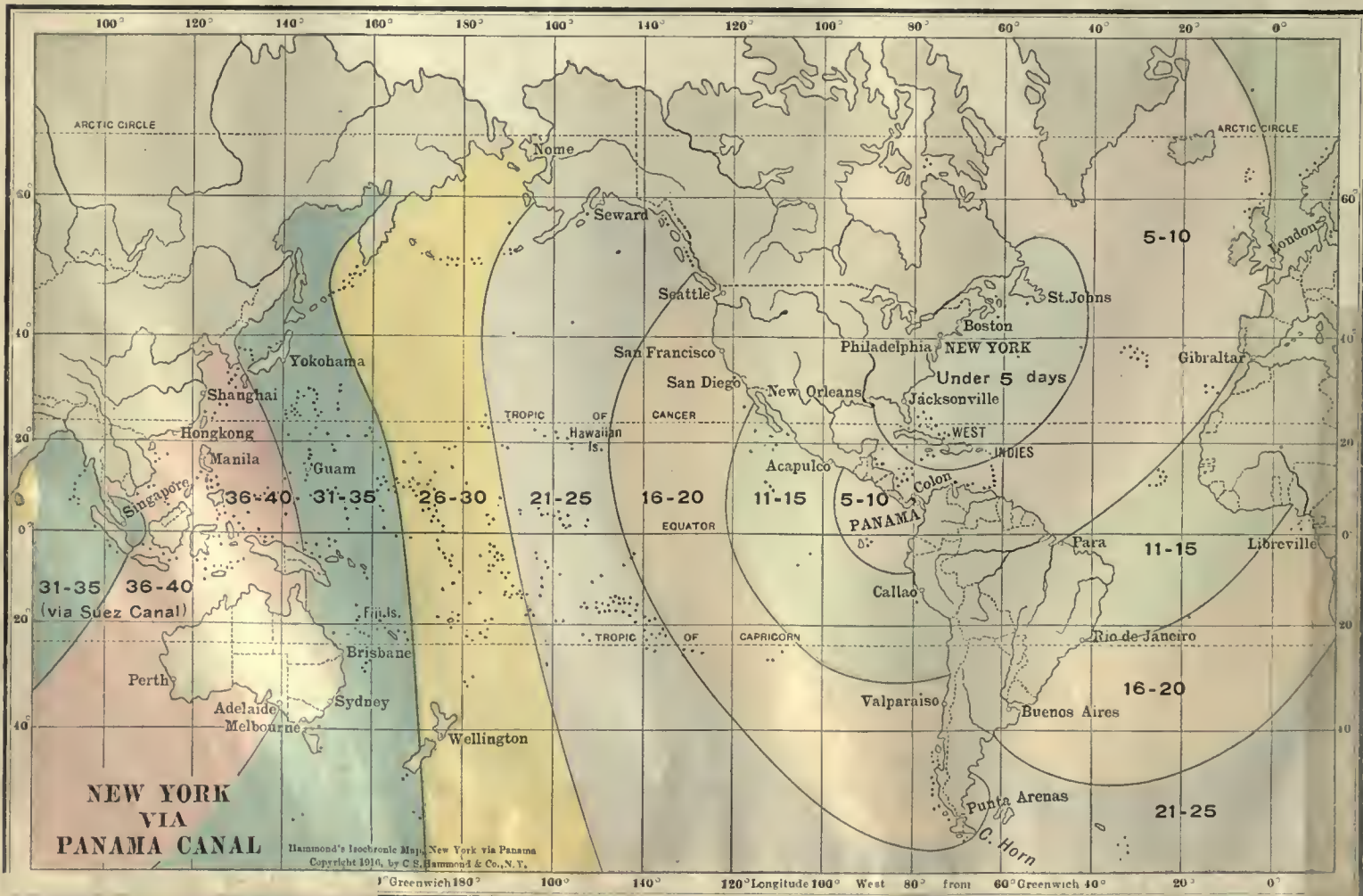
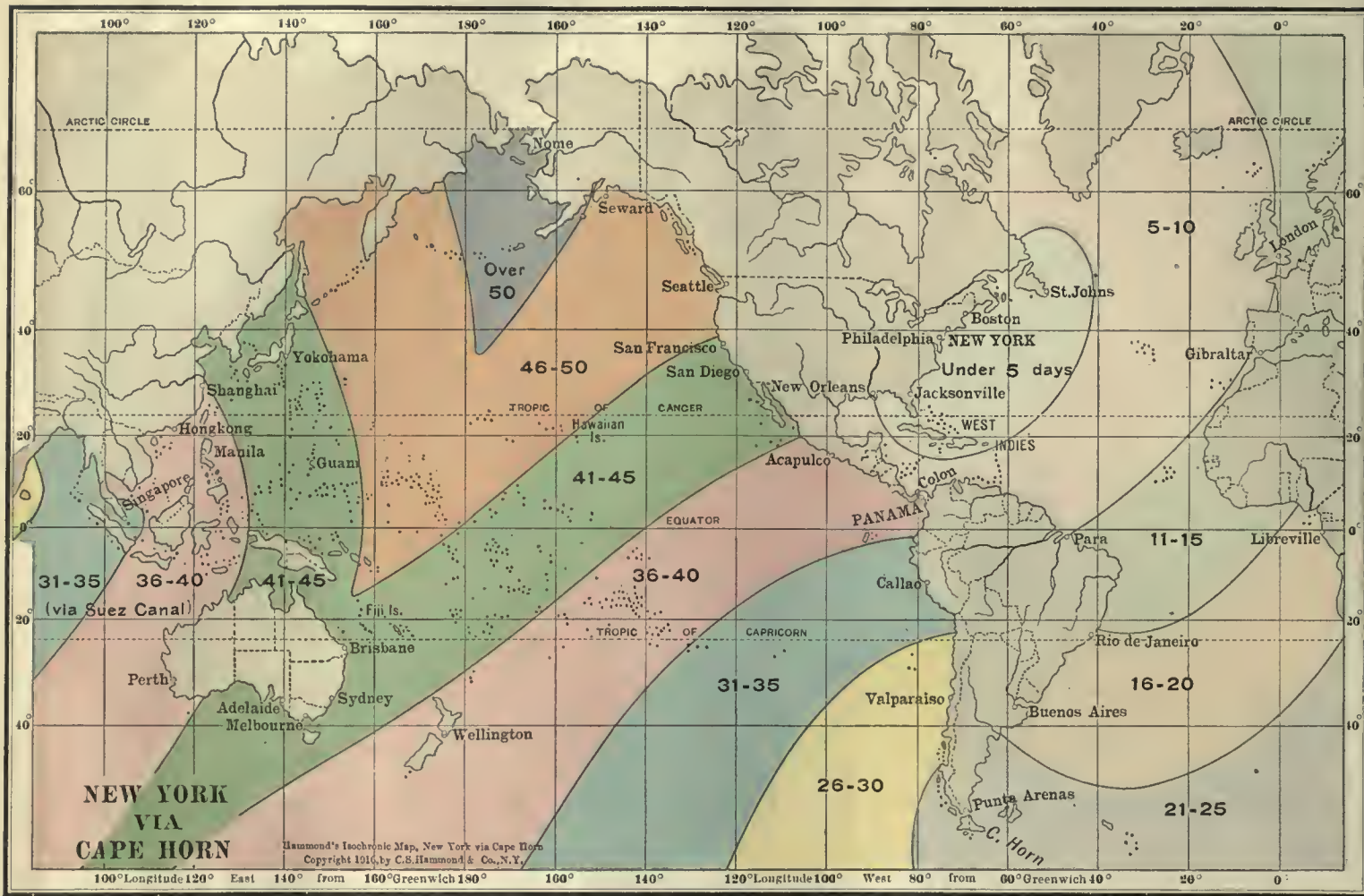
- airroads.....
- teamship Lines.....
- ubmarine Telegraph Cables.....
- erritorial Capital.....
- ounty Seats.....

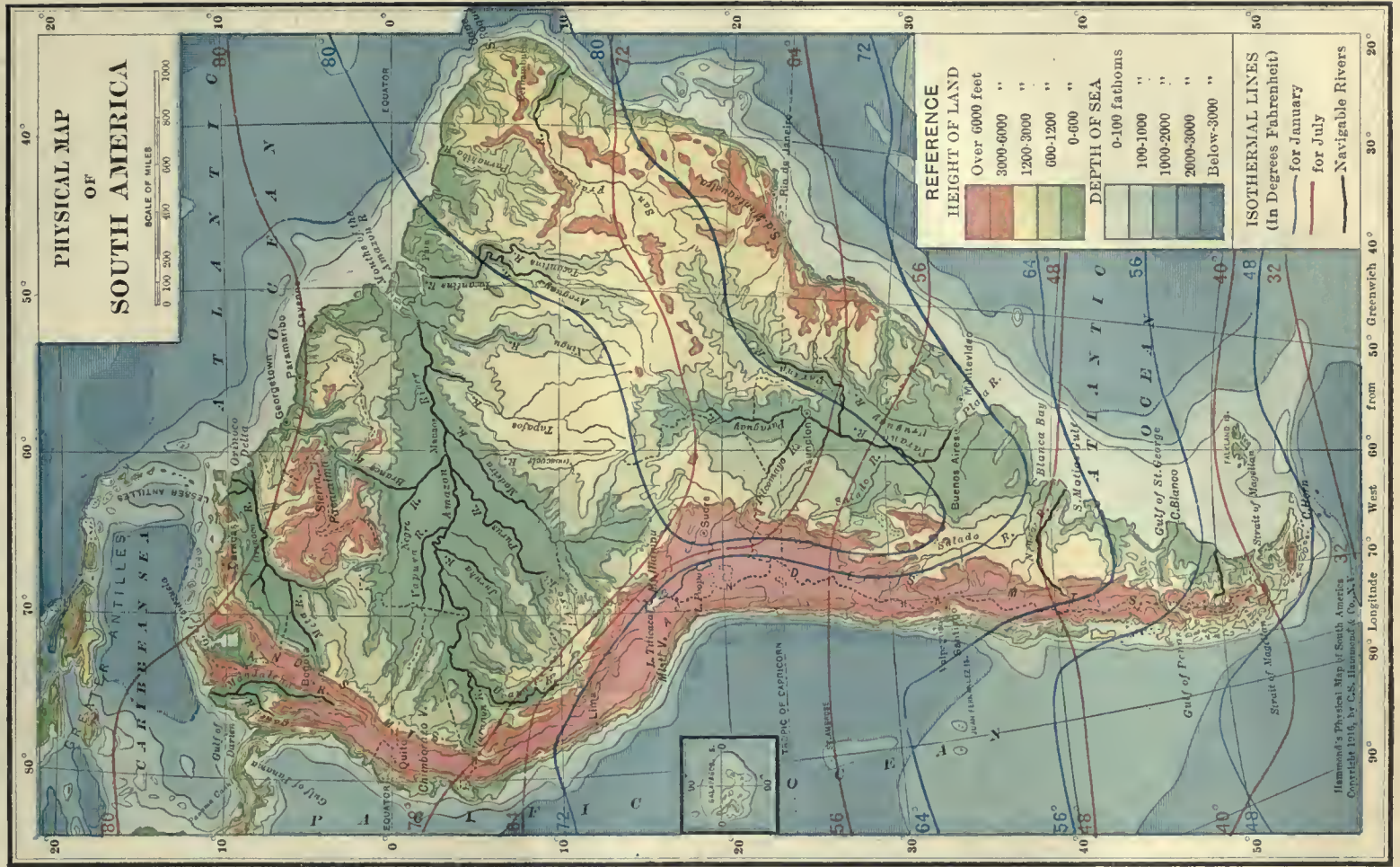
Hammond's 11 x 18 Map of Hawaii Territory
Copyright by C.S. Hammond & Co., N.Y.

G 157°30' H Longitude 157° West I From 156°30' Greenwich J 156° K 155°30' L 155° M

ISOCHRONIC CHARTS

The zones of color show the number of days taken to reach certain regions from the Port of New York before and after the completion of the Panama Canal. For comparative purposes the basis of three hundred nautical miles steaming per day has been adopted, each zone of color representing five days or 1500 miles.









NORTH AMERICA

SCALE OF MILES
 0 50 100 200 300 400 500 600 700 800

National Capitals.....
 State and Provincial Capitals.....
 Size of type indicates relative importance of places

Examined & Complete Map of North America.
 Copyright, by C.E. Hammond & Co., N.Y.



CLIMATE MAP OF NORTH AMERICA
SUMMER CONDITIONS

SCALE OF MILES
 0 200 400 600 800

REFERENCE

Rainfall
 Mean for 6 months from
 May 1 to Oct 31



— 29.7° July Isobars
 → Prevailing Winds

Hammond's Climate Map of North America
 Copyright by G.S. Hammond & Co., N.Y.

120° Longitude 110° West from 100° 90° Greenwich 80° 70°







ECONOMIC MAP OF NORTH AMERICA

SCALE OF MILES
0 100 200 300 400 500 600 700 800

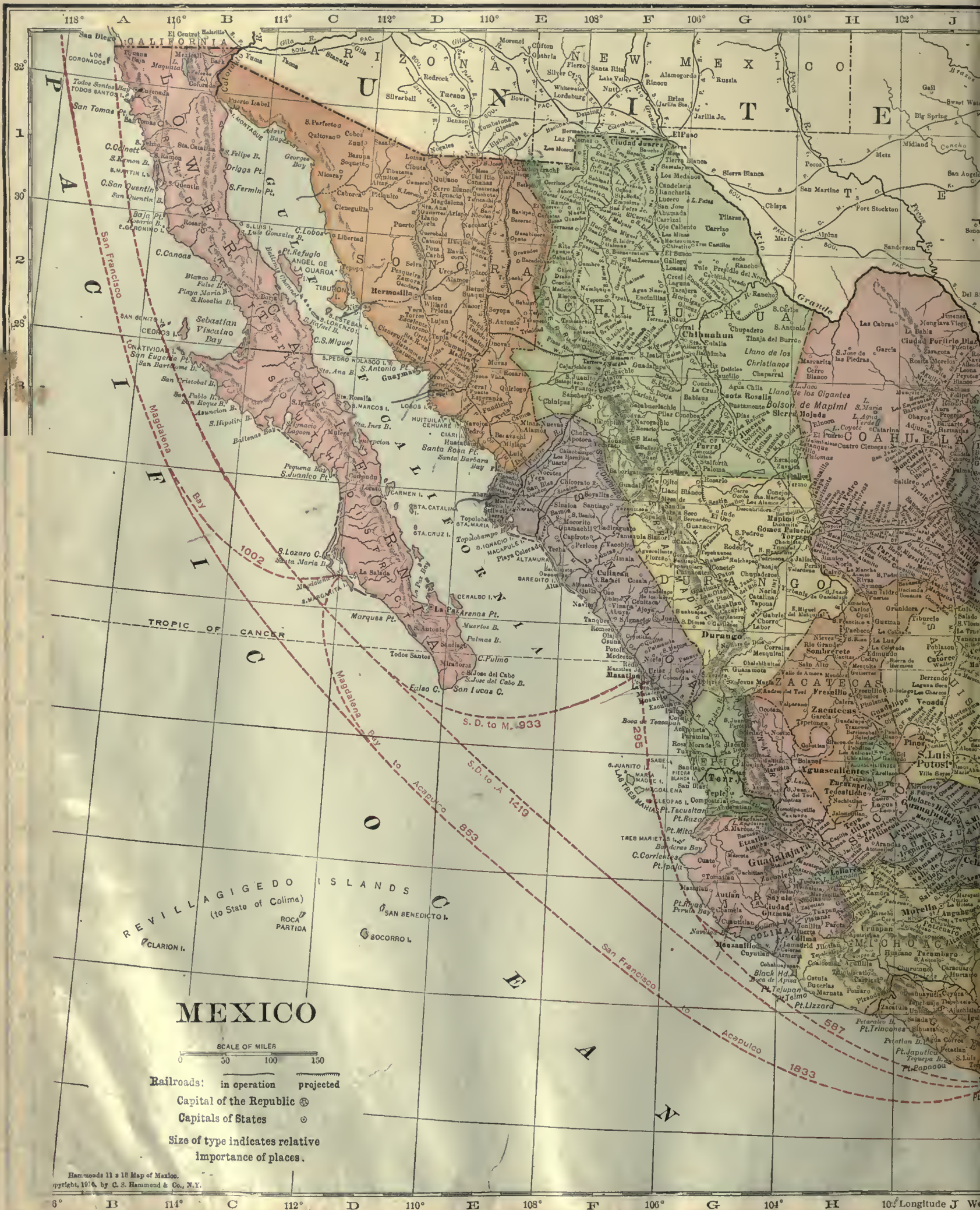
REFERENCE

- Industrial Districts
 - Productive Regions
 - Non-Productive
-
- Coal
 - Iron
 - Silver
 - Copper
 - Gold
 - Petroleum
- Principal Workings
- Agricultural products are indicated by initial letters in districts where the products are largely obtained:-
- | | |
|------------------|--------------------|
| B Barley | O Oats |
| Ca Cacao | Ri Rice |
| Cf Coffee | Su Sugar |
| Ct Cotton | To Tobacco |
| Fr Fruit | V Vineyards |
| M Maize | W Wheat |
- Navigable Rivers

Hammond's Economic Map of North America
Copyright, 1918, by C.S. Hammond & Co., N.Y.







MEXICO



- Railroads: in operation projected
- Capital of the Republic ☉
- Capitals of States ○
- Size of type indicates relative importance of places.

Hammonds 11 s 18 Map of Mexico.
Copyright, 1906, by C. S. Hammonds & Co., N.Y.

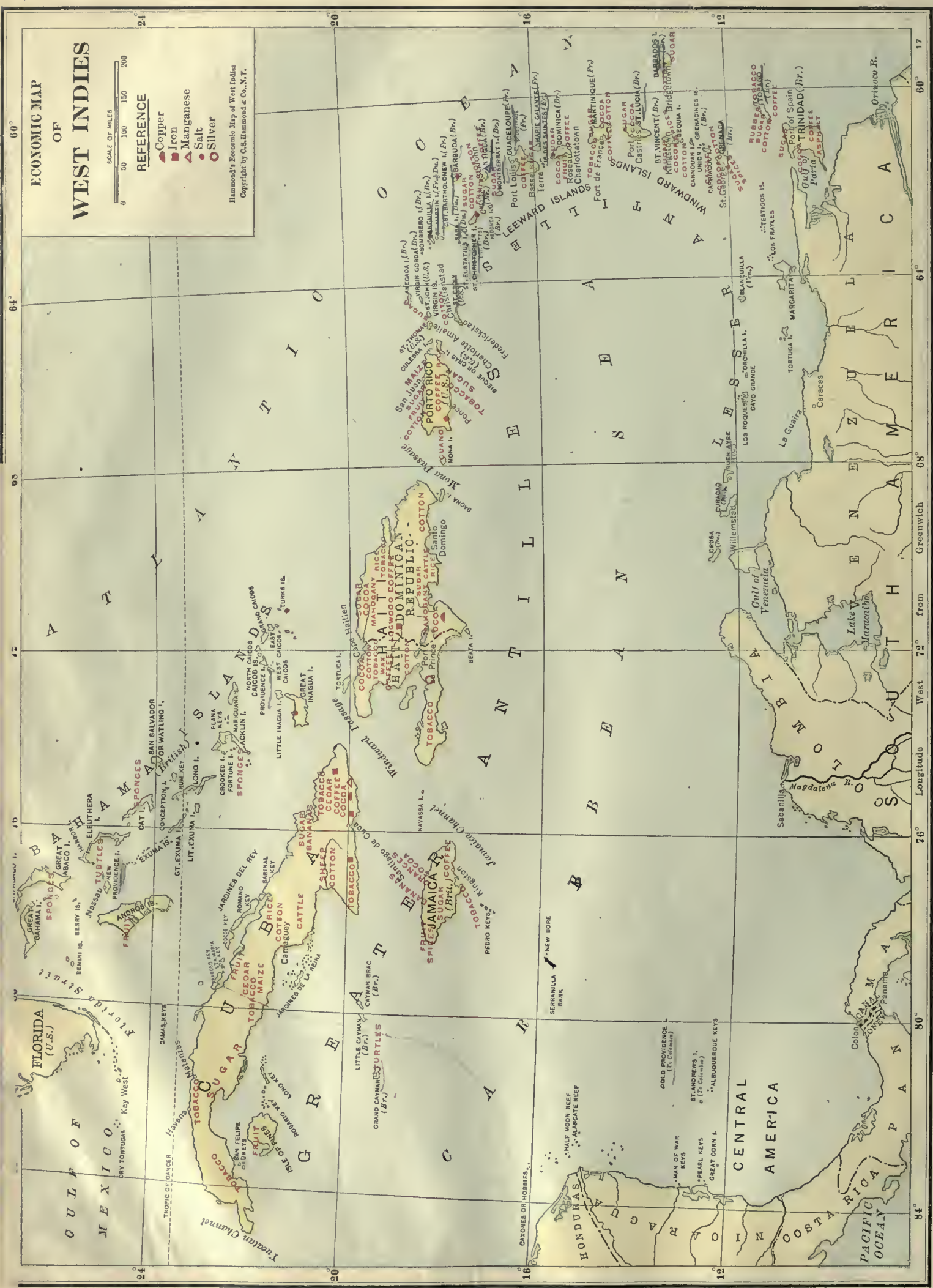


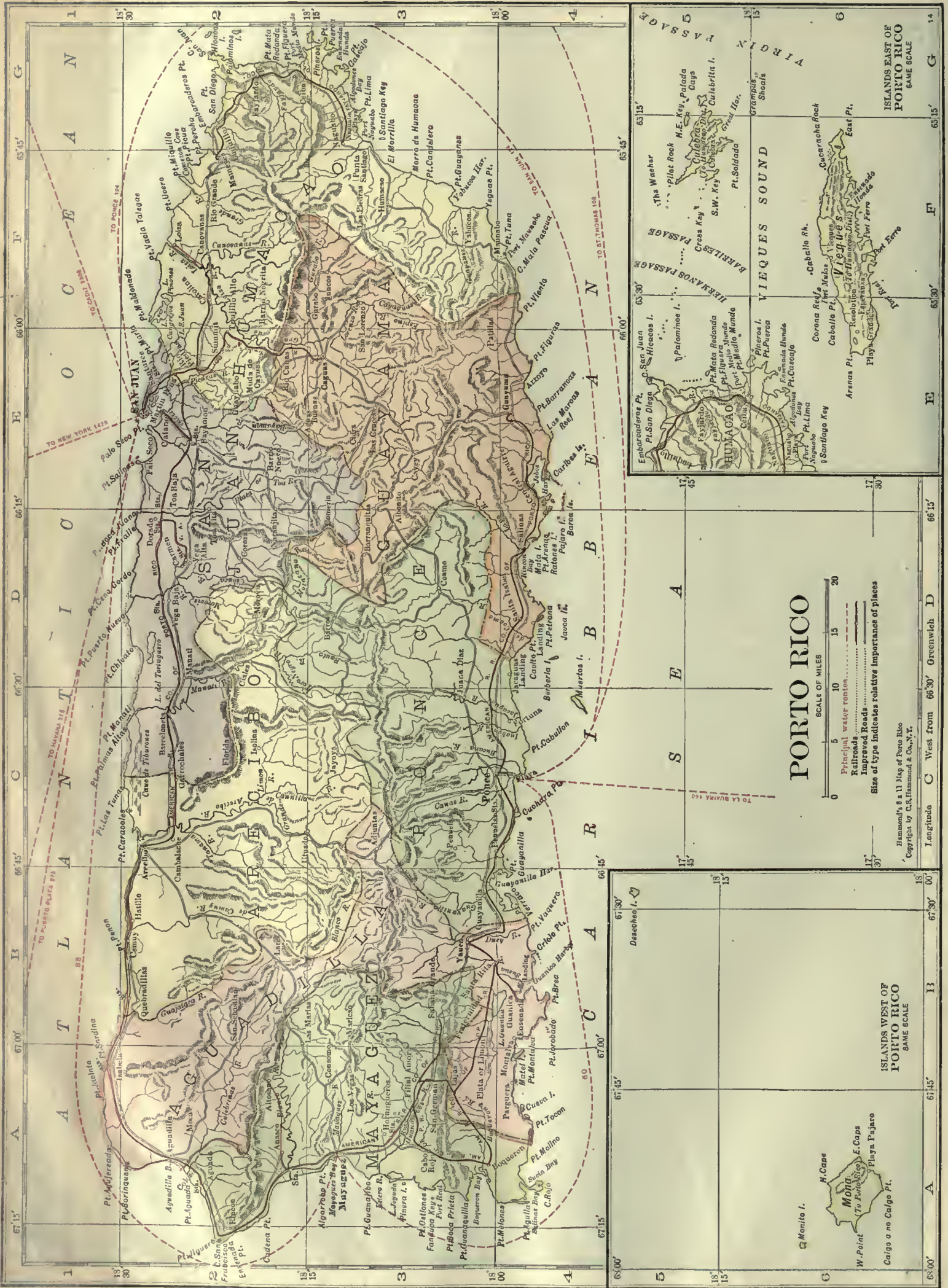
ECONOMIC MAP OF WEST INDIES



- REFERENCE
- Copper
 - Iron
 - ▲ Manganese
 - ▲ Salt
 - Silver

Hammond's Economic Map of West Indies
Copyright by C.S. Hammond & Co., N. Y.







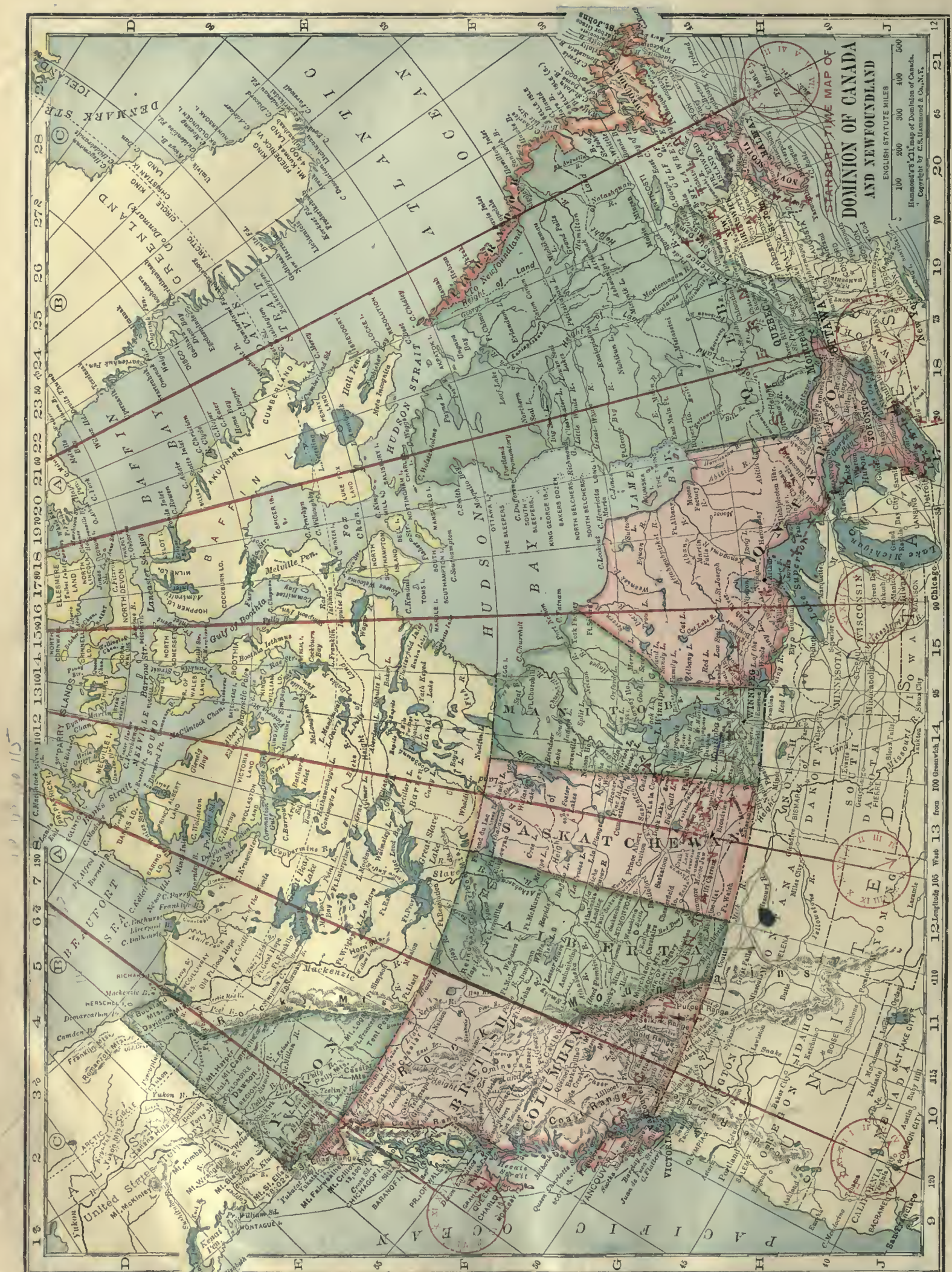
CUBA

Scale of Miles
0 10 20 30 40 50 75 100

Explanation

- Capital of Cuba thus: **HAVANA** ☆
- Capitals of Provinces thus: **Matanzas** ⊙
- Islands: ————
- Principal water routes: - - - - -

Hammond's 6 s 11 Map of Cuba.



19 13 00 15



THE MARITIME PROVINCES OF CANADA
 With Insert Map of NEWFOUNDLAND
NEW BRUNSWICK, NOVA SCOTIA, PRINCE EDWARD ISLAND

SCALE OF MILES
 0 10 20 30 40 50 60 70 80

SCALE OF MILES TO THE INCH
 0 10 20 30 40 50 60 70 80

Railroads
 Submarine Telegraph Lines
 Capitals of Provinces
 Capitals of Districts

Hammell's & Co. Map of the Maritime Provinces of Canada.
 Copyright, 1912, by C.S. Hammell & Co., N. Y.

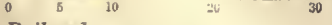






QUEBEC
(South Central Part)

SCALE OF MILES



- Railroads ————
- Railroads Proposed - - - - -
- Canals ————
- National Parks ————
- Dominion Capital ————
- Province Capital ————
- County Seats ————
- Size of type indicates relative importance of places

Hammond's Complete Map of Quebec (South Central Part)
Copyright, 1918 by C.B. Hammond & Co., N.Y.



ONTARIO (Southern Part)

SCALE OF MILES

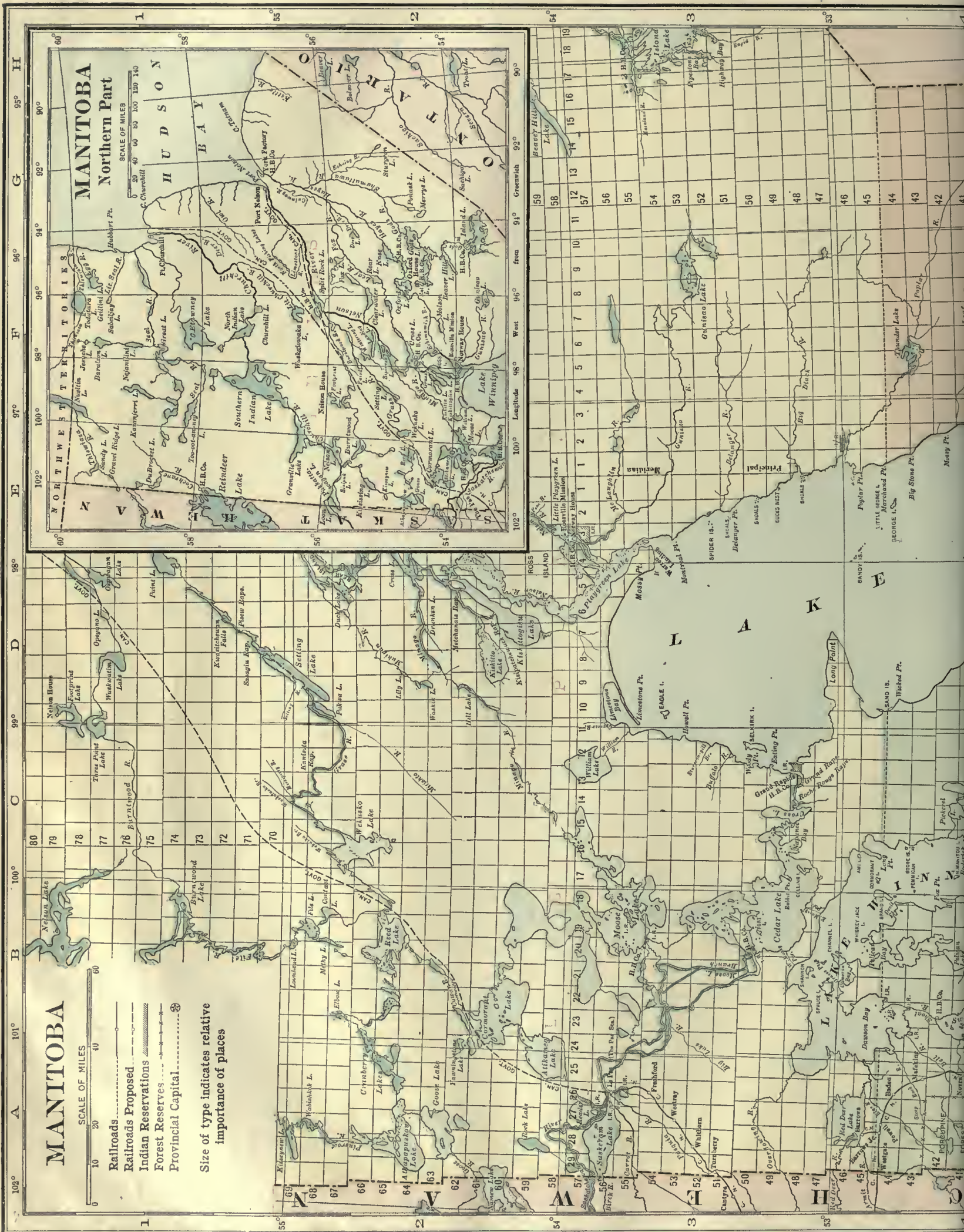
- Railroads
- Railroads Proposed
- Canals
- National Parks
- Indian Reservations

Dominion Capital *
Province Capital * County Seats *
Size of type indicates relative importance of places



Hammond's Complete Map of Ontario. (Southern Part.)
Copyright, 1916 by C.S. Hammond & Co., New York.





MANITOBA

SCALE OF MILES
0 10 20 40 60

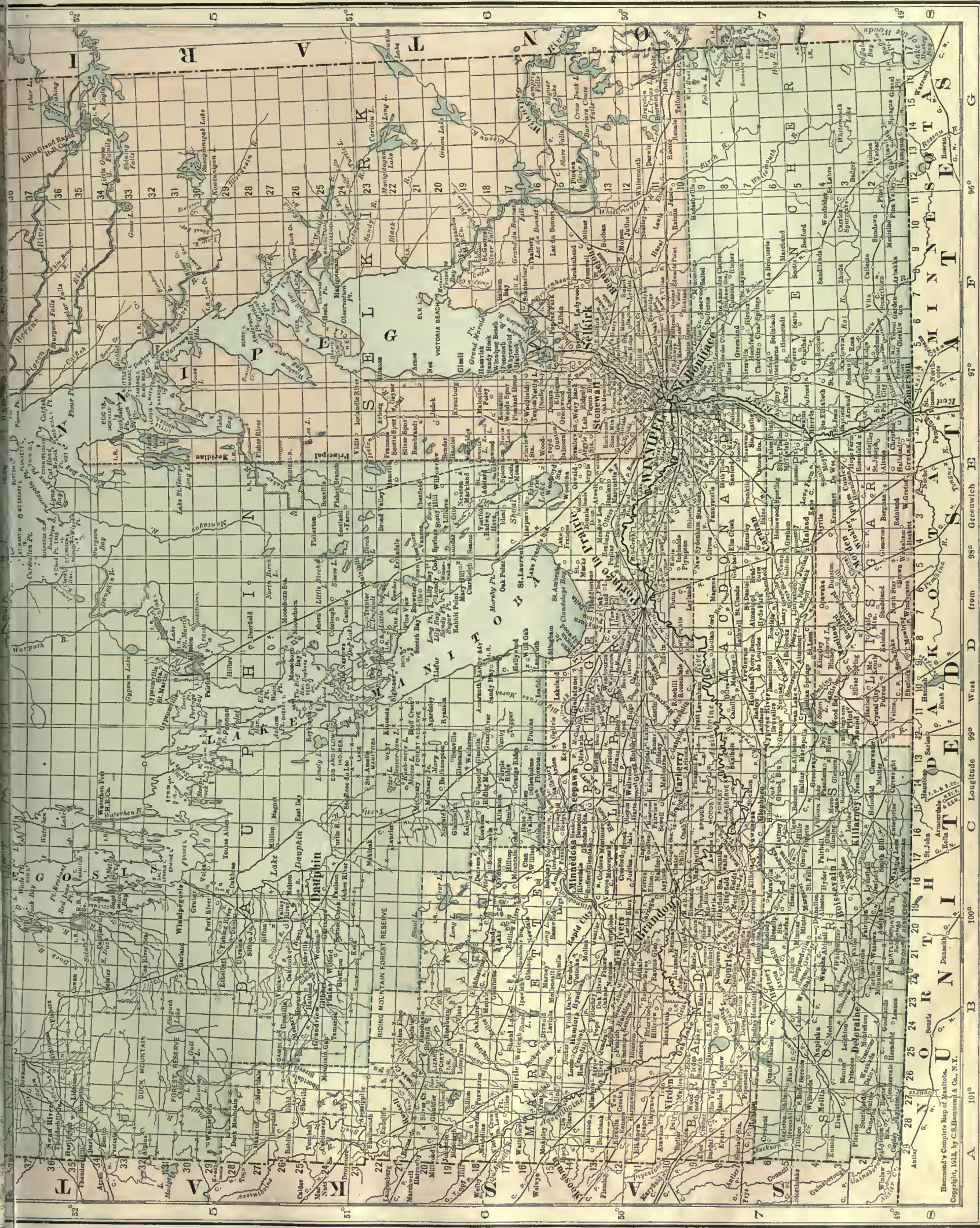
- Railroads
- Railroads Proposed
- Indian Reservations
- Forest Reserves
- Provincial Capital

Size of type indicates relative importance of places

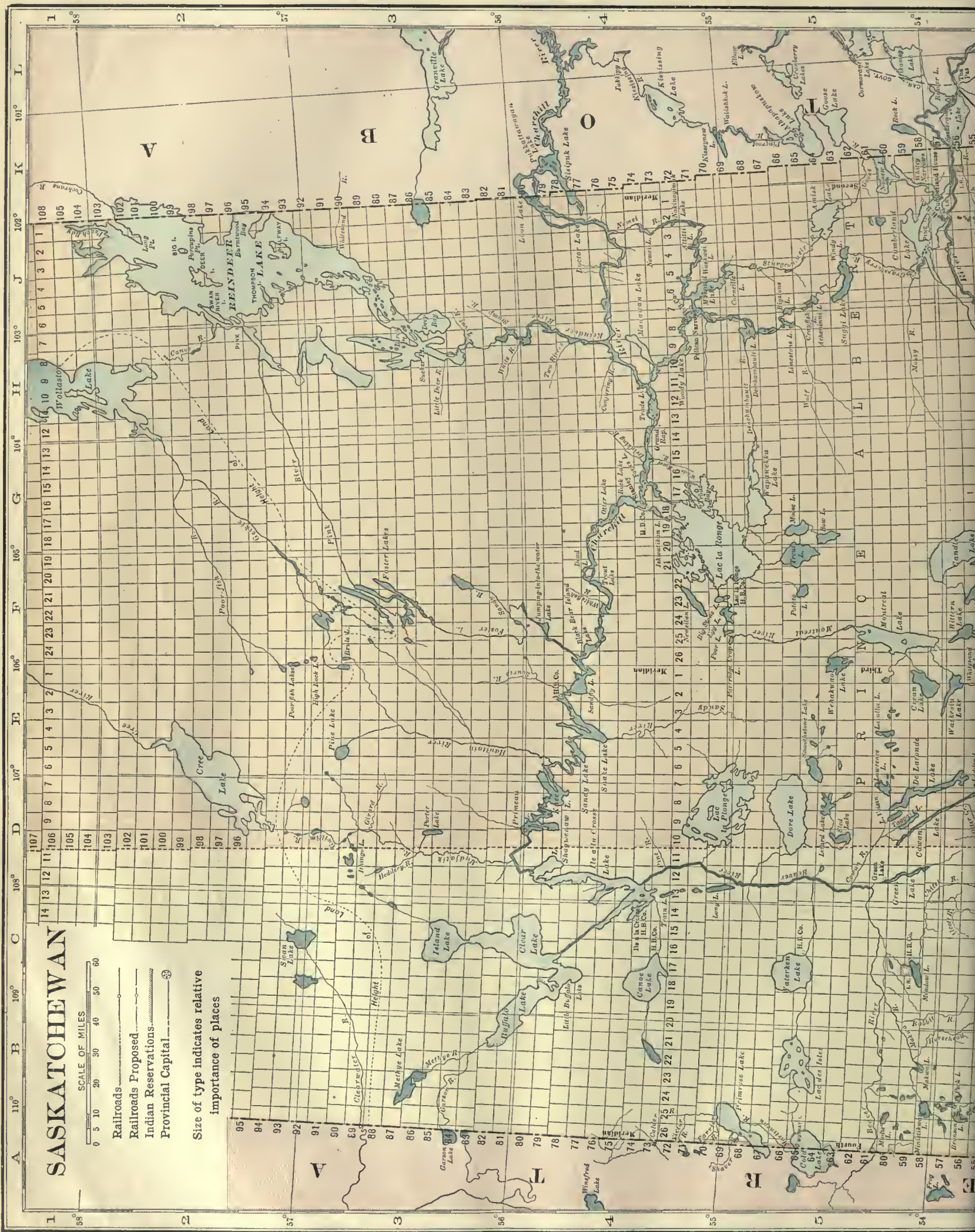
MANITOBA Northern Part

SCALE OF MILES
0 20 40 60 80 100 120 140



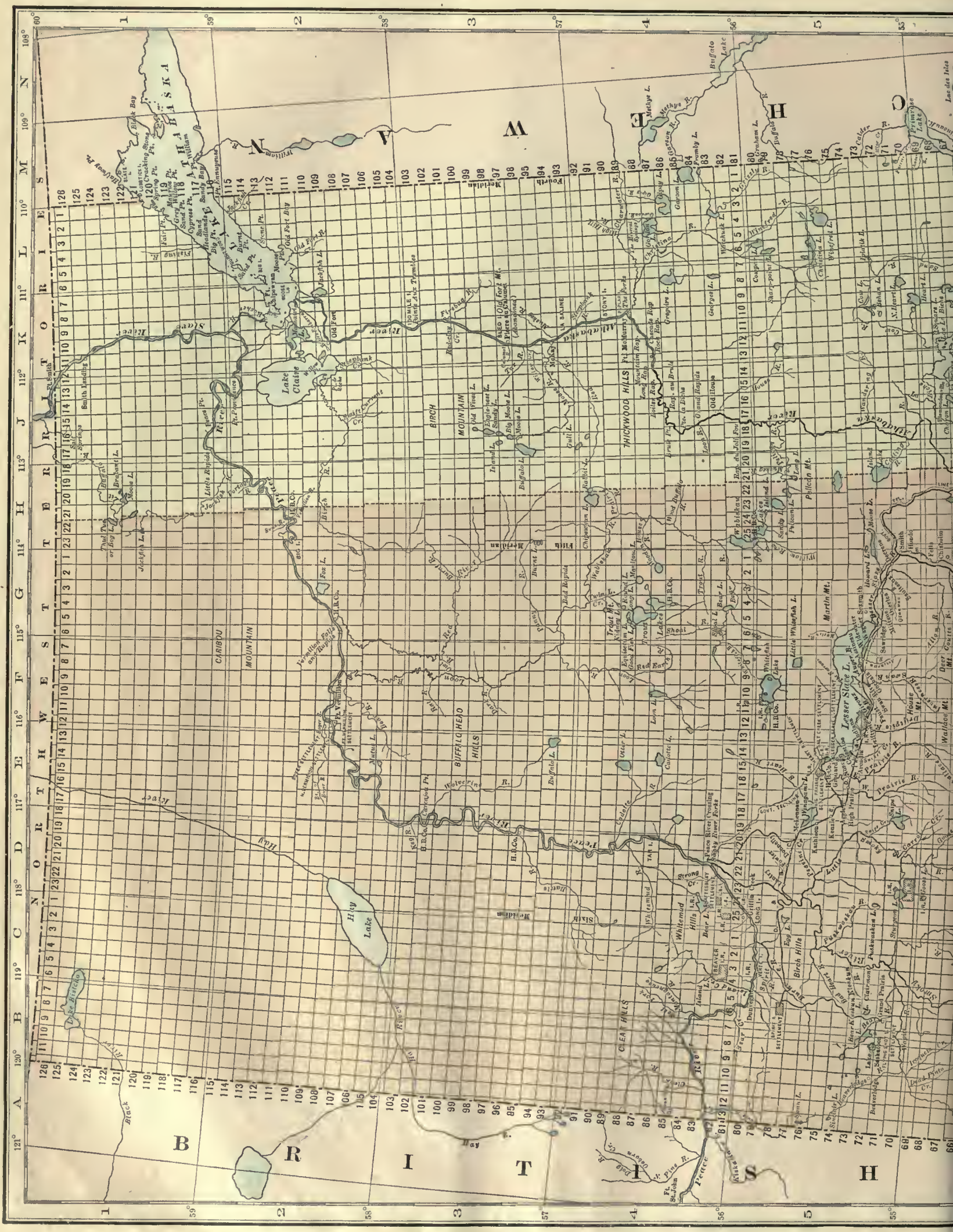


Hammett's Complete Map of Adirondack.
Copyright, 1914, by C.S. Hammett & Co., N. Y.





11
Copyright 1914, by C.B. Hammond & Co., N.Y.

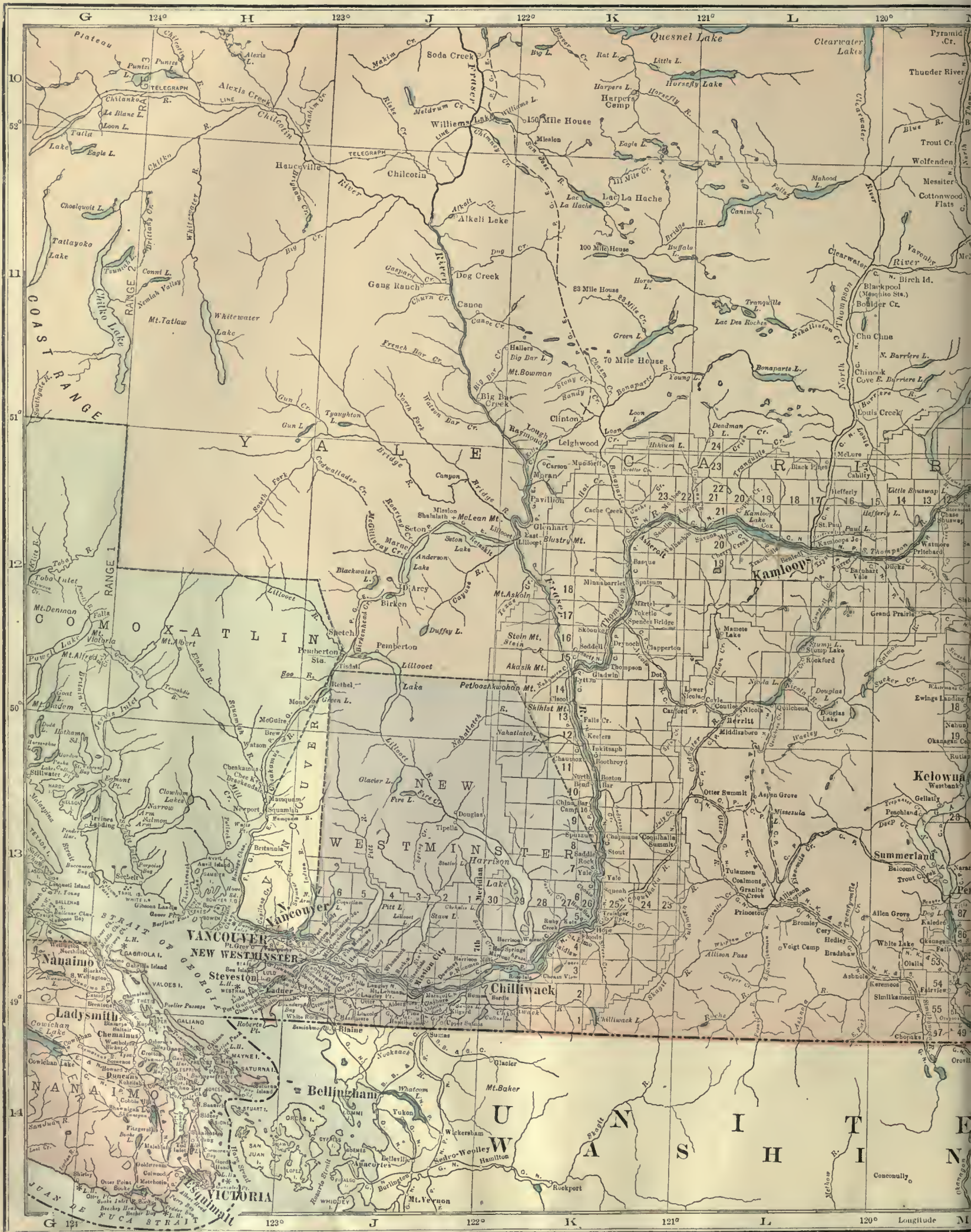




120° 119° 118° 117° 116° 115° West from G-Greenwich 111° 112° 113° 114° 115° 116° 117° 118° 119° 120° M
 I L I K J H G F E D C B A
 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59

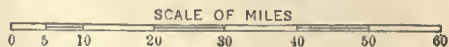
- ALBERTA**
- SCALE OF MILES
 0 5 10 20 30 40 50 60 70 80
- Railroads.....
 - Railroads Proposed.....
 - Indian Reservations.....
 - National Parks.....
 - Provincial Capital.....
 - Size of type indicates relative importance of places

Hammann's Complete Map of Alberta.
 Copyright, 1914, by C.S. Hammann & Co., N.Y.

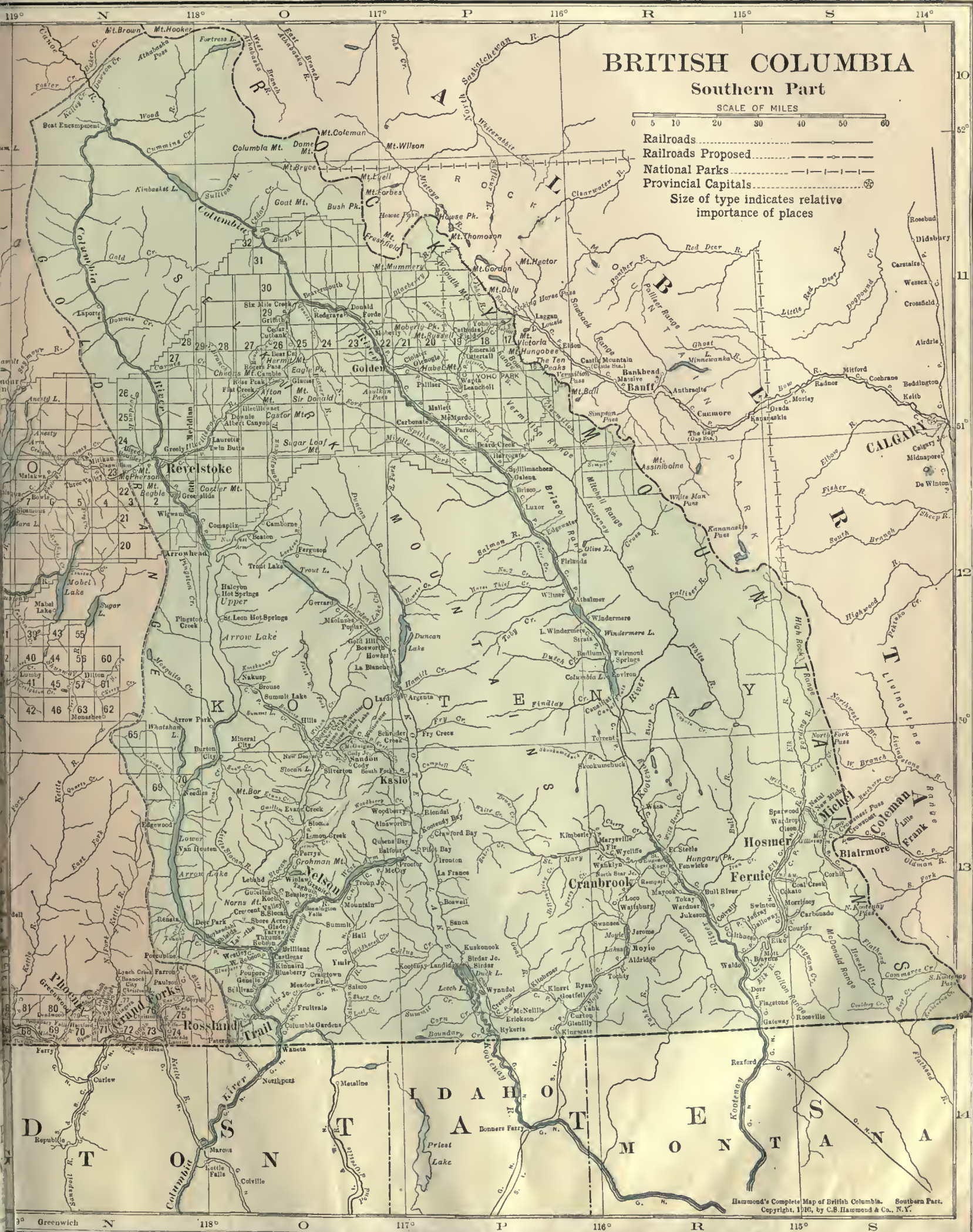


BRITISH COLUMBIA

Southern Part



- Railroads
- Railroads Proposed
- National Parks
- Provincial Capitals
- Size of type indicates relative importance of places



Hammond's Complete Map of British Columbia. Southern Part. Copyright, 1926, by C.B. Hammond & Co., N.Y.





CENTRAL AMERICA

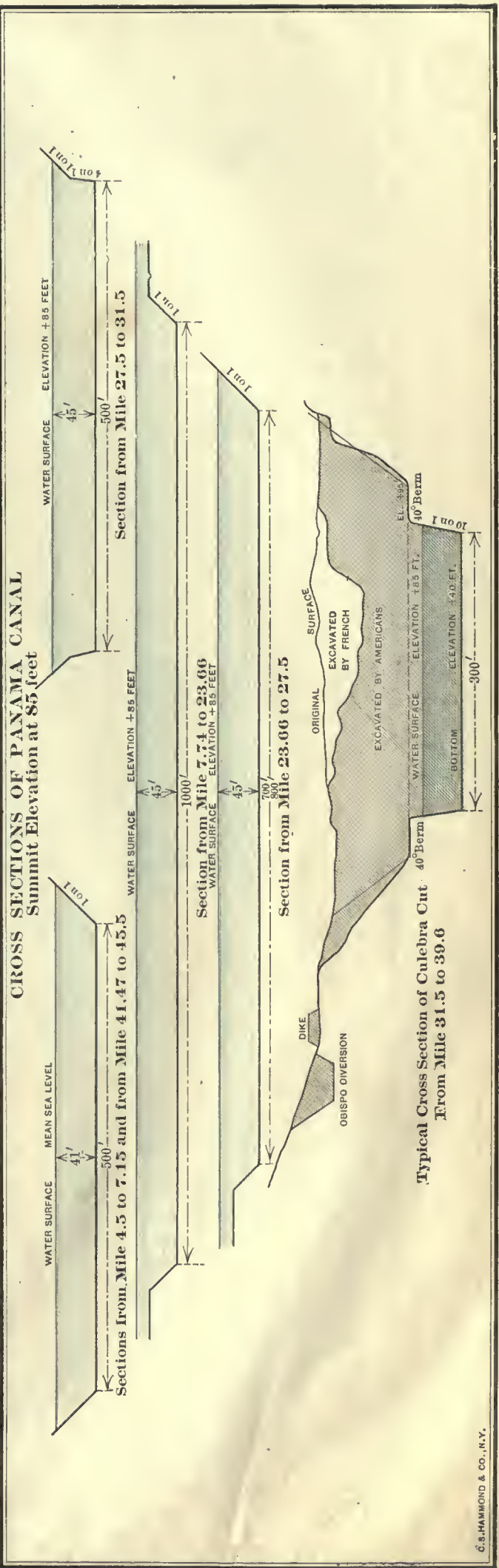
SCALE OF MILES
 0 50 100 200 300

- Submarine Cables
- Railroads
- Size of type indicates relative importance of places
- Principal water routes

Hammond's 8 x 11 Map of Central America
 Copyright by G.S. Hammond & Co., N.Y.







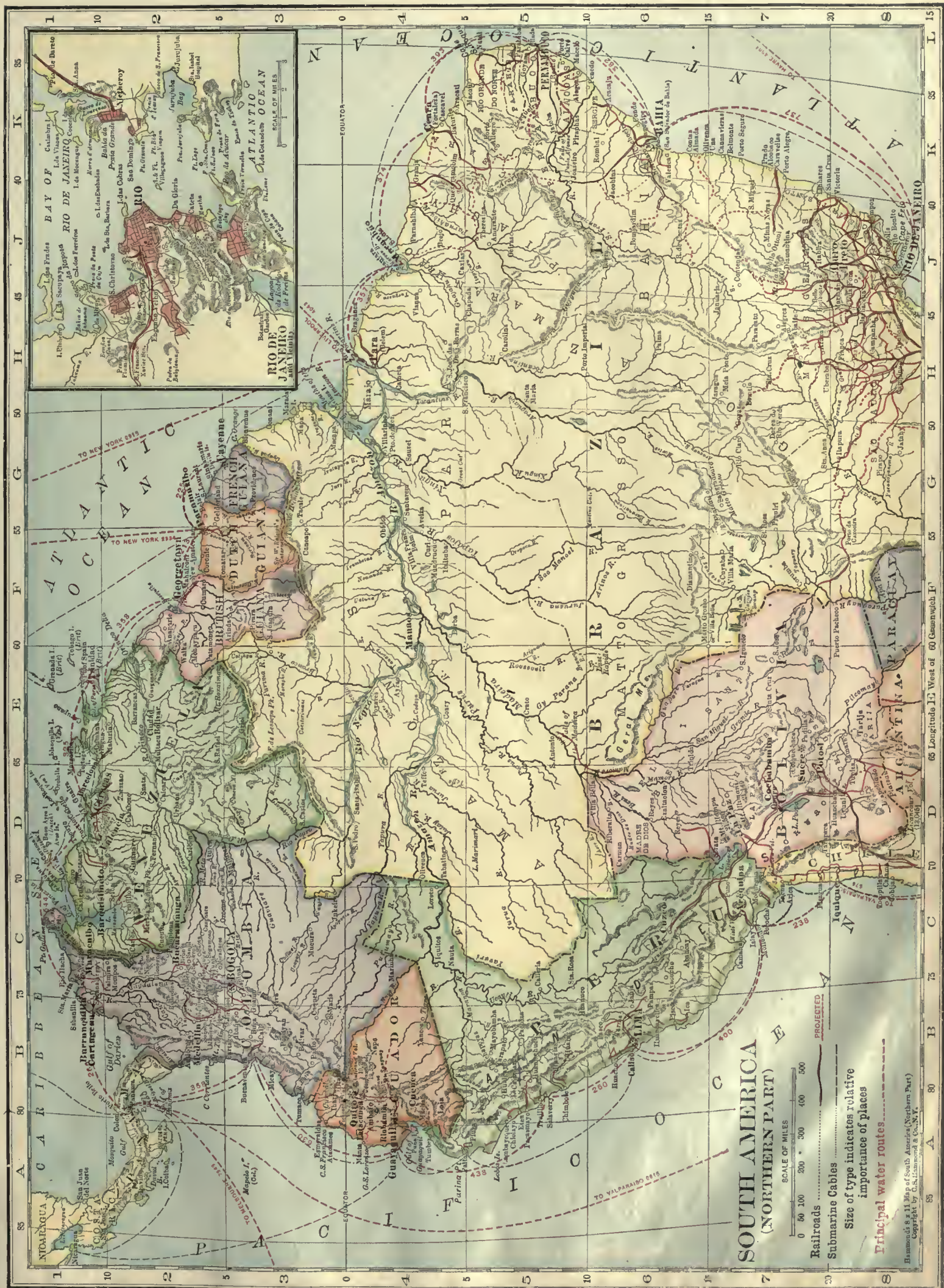




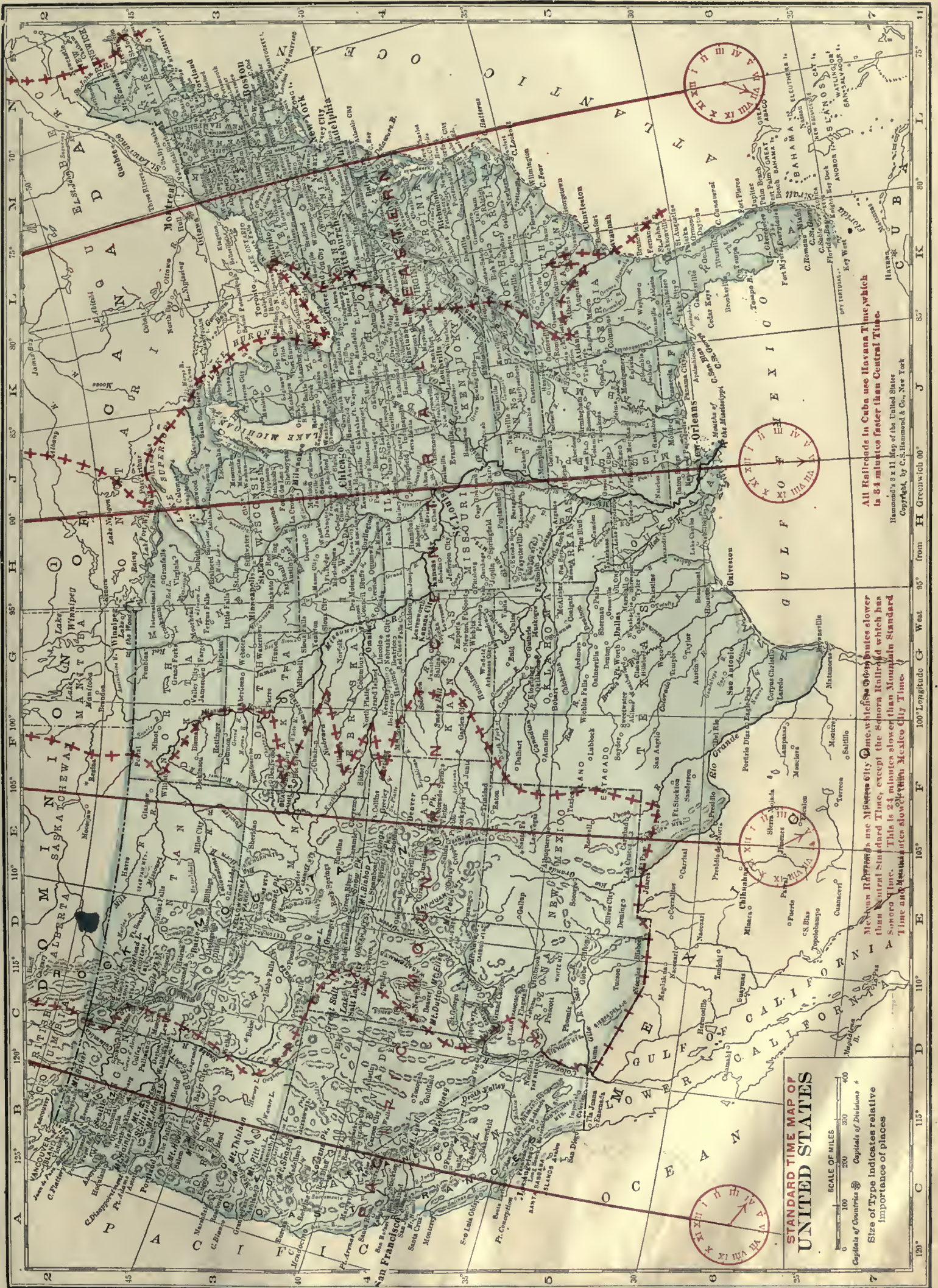












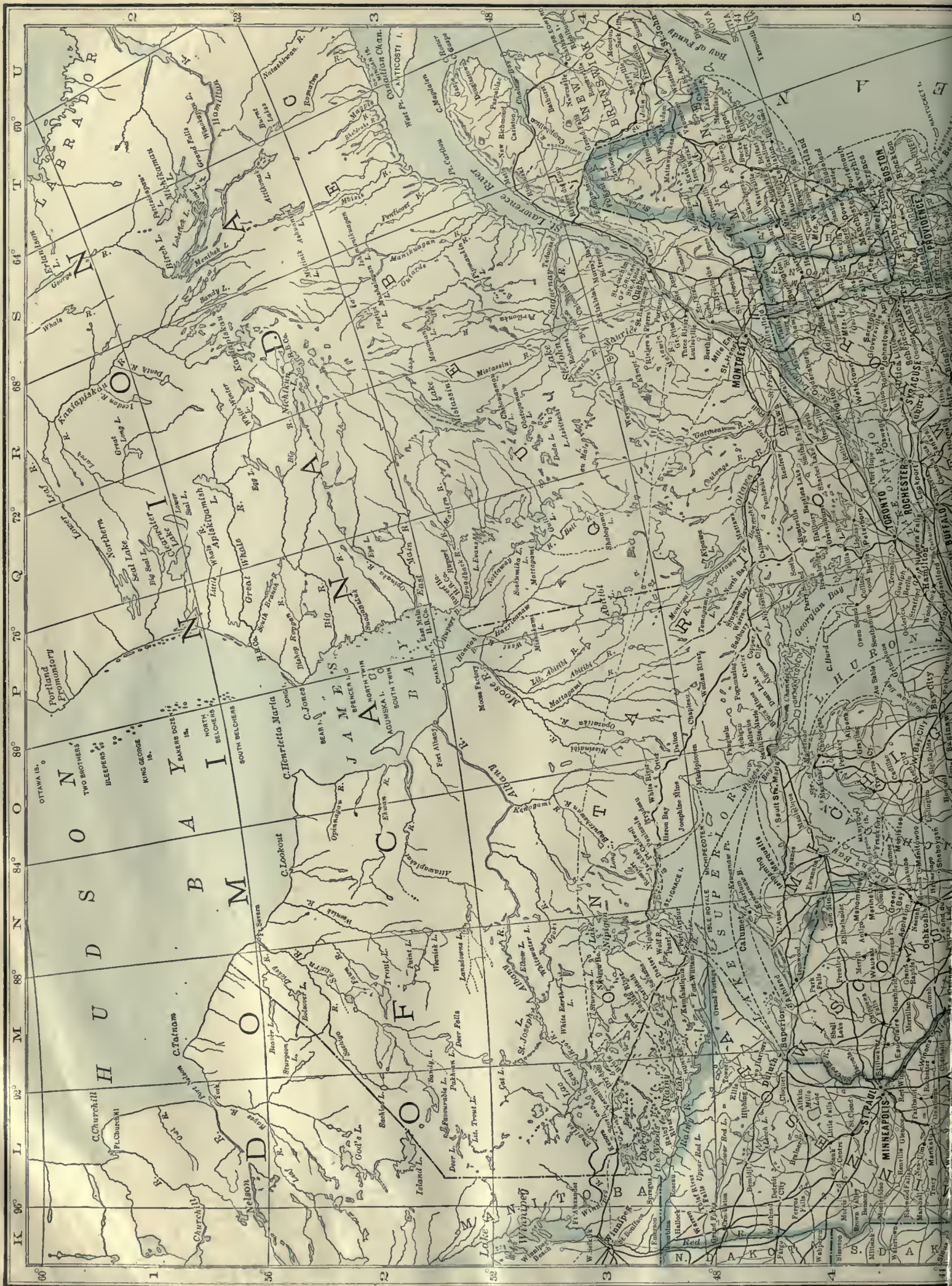
STANDARD TIME MAP OF UNITED STATES

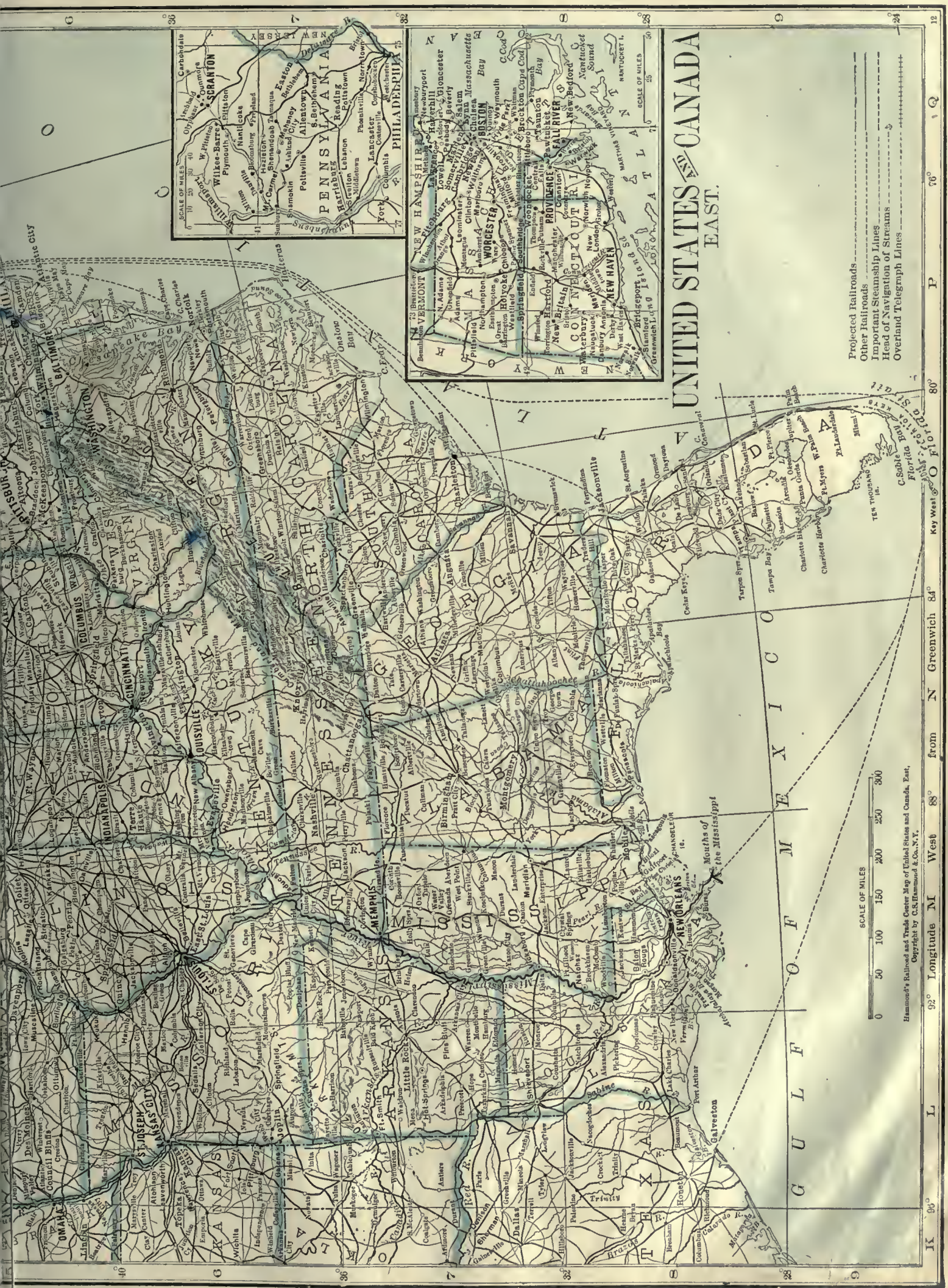
SCALE OF MILES
 0 100 200 300 400
 Capitals of Countries ☉ Capitals of Divisions *
 Size of Type Indicates relative importance of places

Most of the States use Mexican City Time, which is 6 hours slower than Central Standard Time, except the Arizona Railroad which has its own Standard Time. This is 24 minutes slower than Mountain Standard Time and 24 minutes slower than Mexico City Time.

All Railroads in Cuba use Havana Time, which is 84 minutes faster than Central Time.

Hamm's 8 x 11 Map of the United States
 Copyright, by C. S. Hammond & Co., New York
 from H. Greenwich 00°





UNITED STATES AND CANADA
EAST.

- Projected Railroads
- Other Railroads
- Important Steamship Lines
- Head of Navigation of Streams
- Overland Telegraph Lines



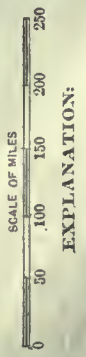
Hammond's Railroad and Trade Center Map of United States and Canada, East.
Copyright by C.S. Hammond & Co., N.Y.

92° Longitude M West 88° from N Greenwich 84° Key West 80° 76° 70° 66° 62° 58° 54° 50° 46° 42° 38° 34° 30° 26° 22° 18° 14° 10° 6° 2° 0° 2° 6° 10° 14° 18° 22° 26° 30° 34° 38° 42° 46° 50° 54° 58° 62° 66° 70° 74° 78° 82° 86° 90°





UNITED STATES AND CANADA, WEST.

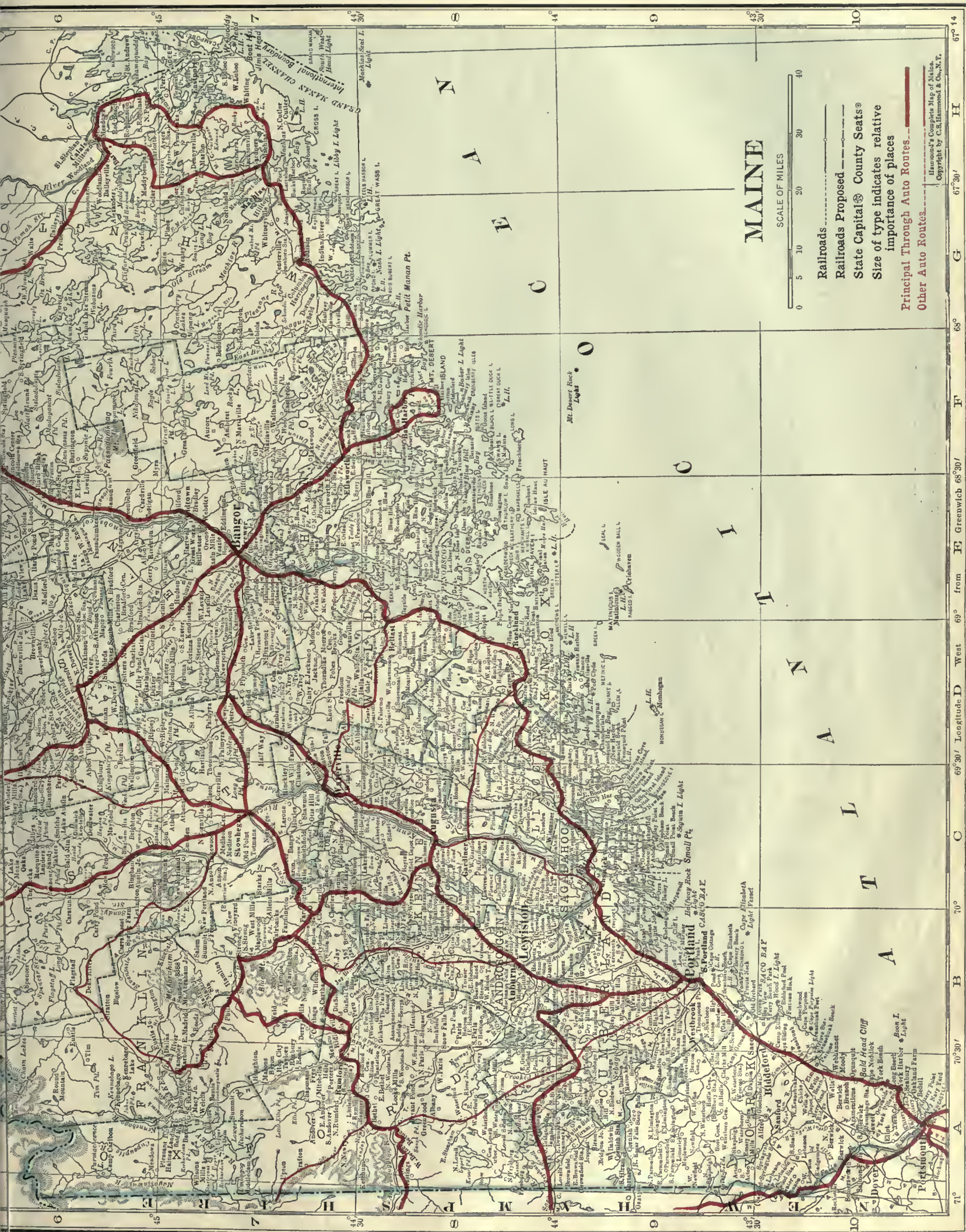


EXPLANATION:

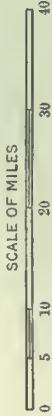
- Projected Railroads
- Other Railroads
- Important Steamship Lines
- Head of Navigation of Streams
- Overland Telegraph Lines

Capitals of States underscored.
 Hamilton's Railroad and Trade Center Map of United States and Canada, West.
 Copyright by C.S. Hammond & Co., N.Y.





MAINE



- Railroads Proposed
- Railroads Proposed
- State Capital
- County Seats
- Size of type indicates relative importance of places
- Principal Through Auto Routes
- Other Auto Routes

Hammond's Complete Map of Maine
Copyright by C.S. Hammond & Co., N.Y.

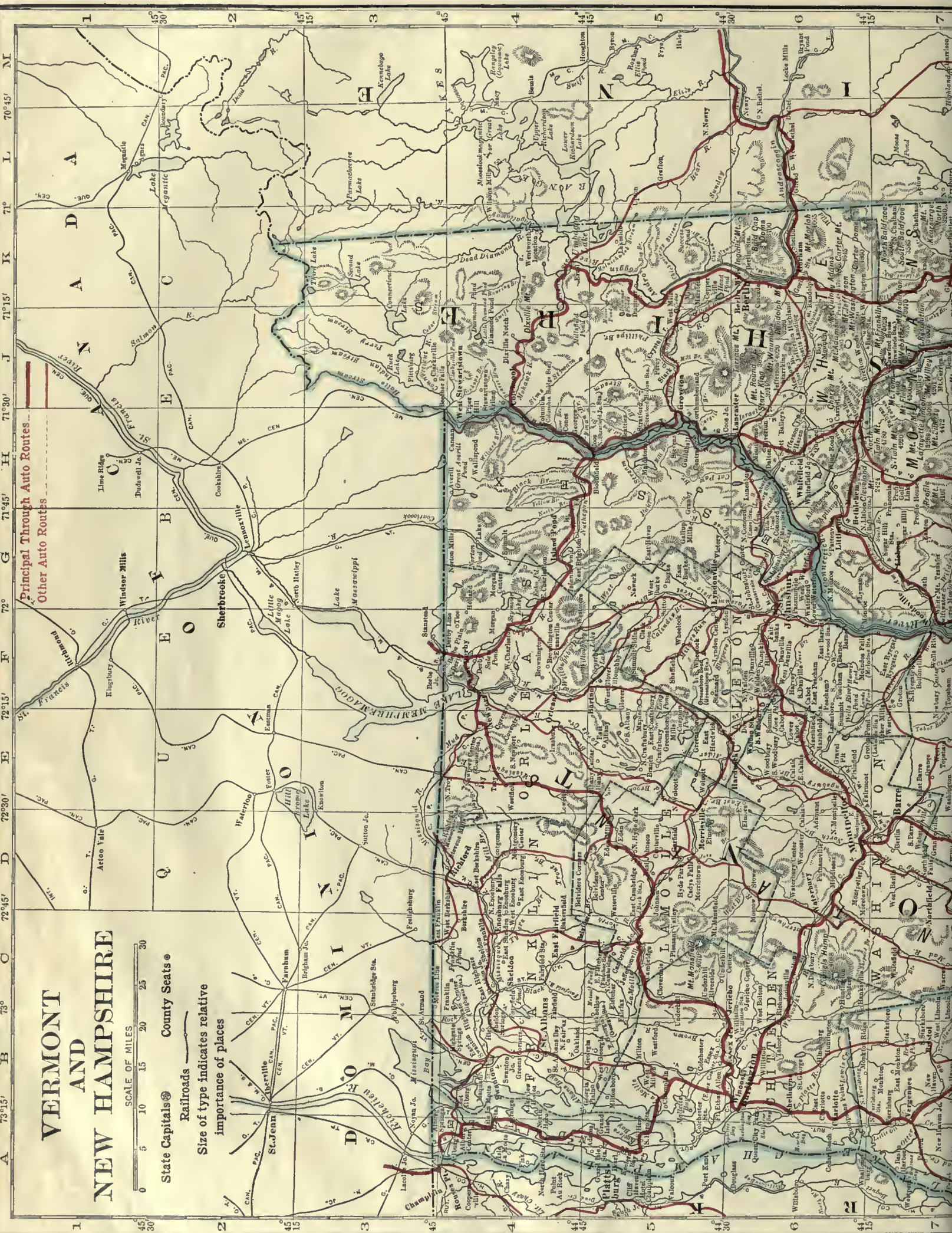
VERMONT AND NEW HAMPSHIRE

SCALE OF MILES
0 5 10 15 20 25 30

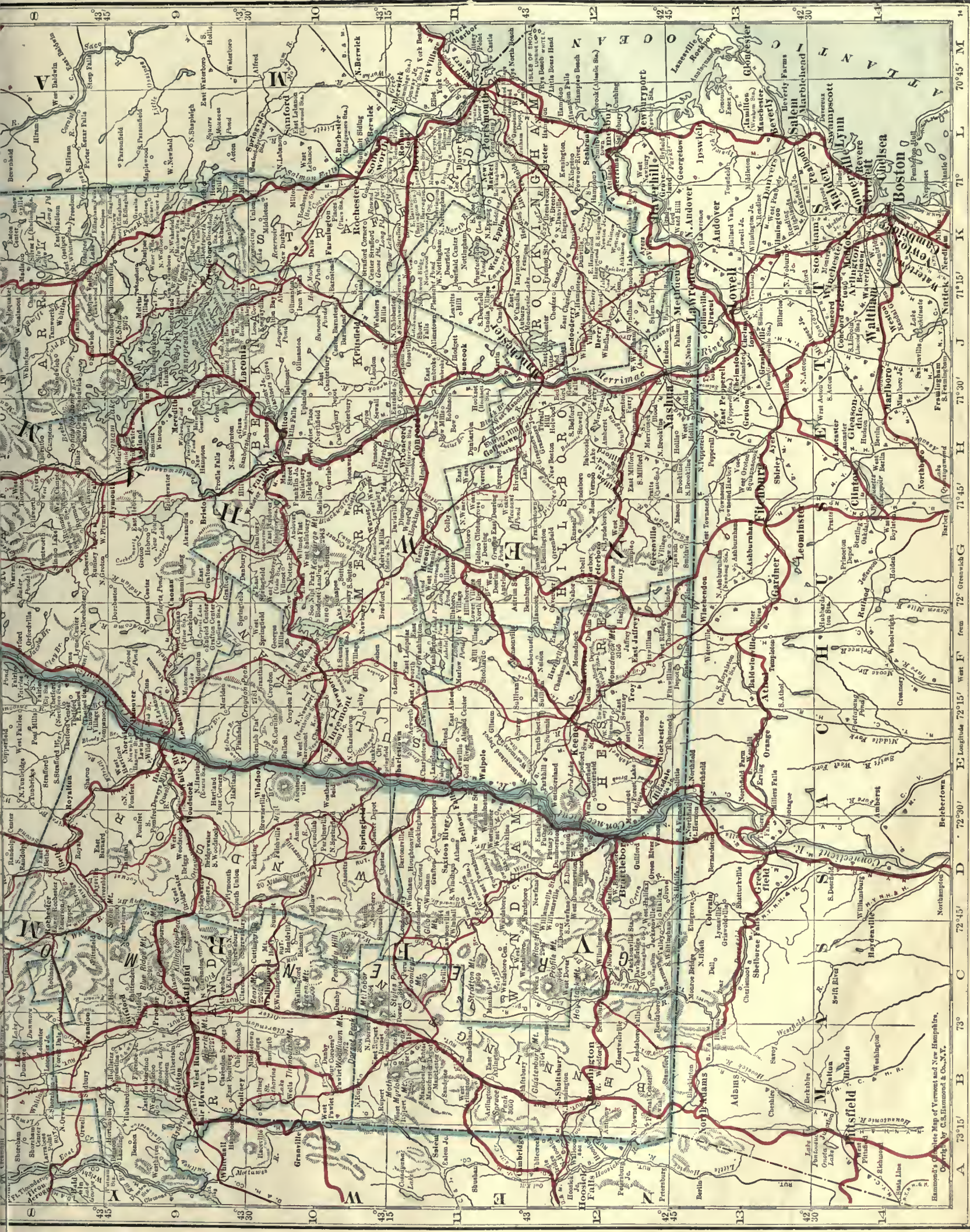
State Capitals County Seats

Railroads

Size of type indicates relative
importance of places



Principal Through Auto Routes
Other Auto Routes



A 73°15' B 73° C 72°45' D 72°30' E Longitude 72°15' West F 72° Green-lab G 71°45' H 71°30' I 71°15' J 71° K 71° L 70°45' M

Hammond's Complete Map of Vermont and New Hampshire, Copyright by C.S. Hammond & Co., N.Y.





SOUTHERN NEW ENGLAND

MASSACHUSETTS, CONNECTICUT AND RHODE ISLAND



State Capitals County Seats

Size of type indicates relative importance of places.

Principal Thorough Auto Routes

Other Auto Routes

Hammond's Complete Map of Southern New England.
Copyright by C.S. Hammond & Co., N.Y.

NEW YORK (Western Part)



Railroads
Canals
Interurban Electric Lines
County Seats
Size of type indicates relative importance of places





78° E 77° 30' F 77° G 76° 30' H

N T A R I O

78° Grewich E 77° 30' F 77° G 76° 30' H

Hammond's Complete Map of New York State
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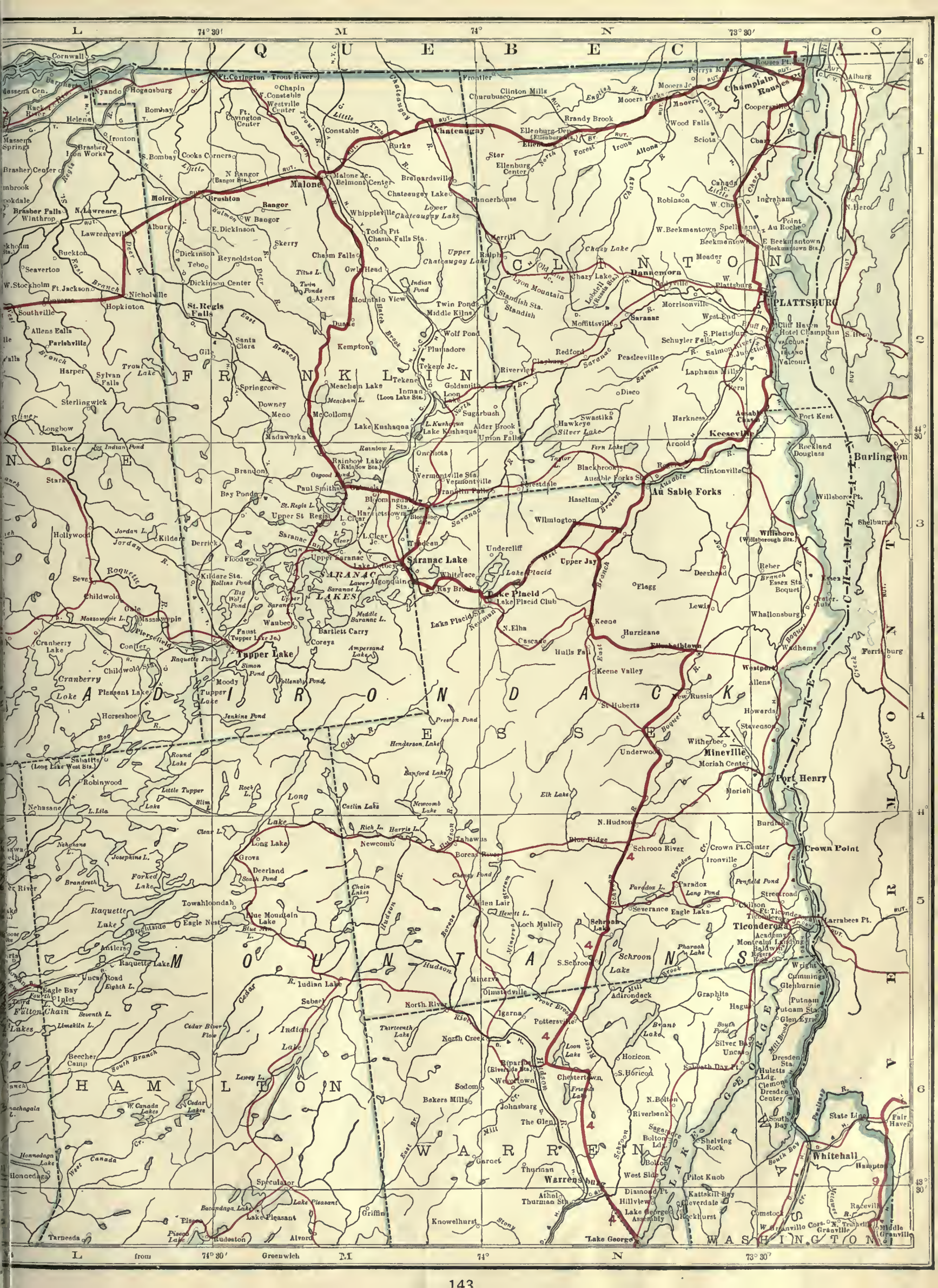
NEW YORK (Northeastern Part)

SCALE OF MILES
0 1 2 3 4 5 10 15 20 25

Railroads
Canals
Interurban Electric Lines
State Capital ⊙ County Seats ⊙
Size of type indicates relative importance of places

Principal Through Auto Routes
Other Auto Routes





L 74° 30' M 74° N 73° 30' O

L from 74° 30' Greenwich M 74° N 73° 30'



NEW YORK
(South Central Part)

SCALE OF MILES
0 1 2 3 4 5 10 15 20 25

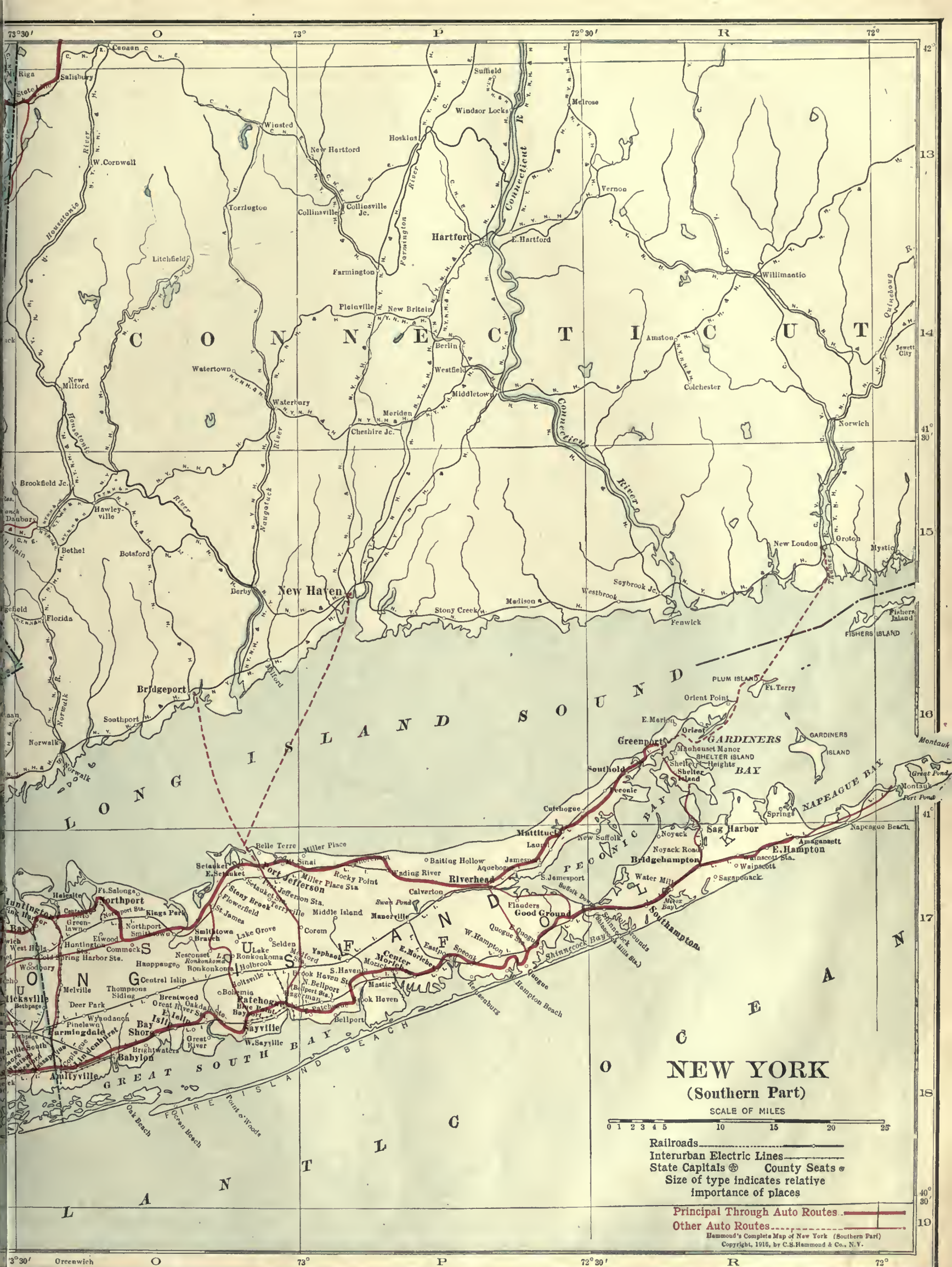
- Railroads ——— Canals ———
- Interurban Electric Lines ———
- State Capital ⊙ County Seats ⊙

Size of type indicates relative importance of places

P E N N S Y L V A N I A



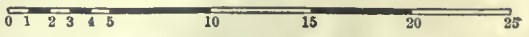




NEW YORK

(Southern Part)

SCALE OF MILES



- Railroads ————
- Interurban Electric Lines ————
- State Capitals ⊙ County Seats ⊙
- Size of type indicates relative importance of places

Principal Through Auto Routes ————
 Other Auto Routes ————

Hammond's Complete Map of New York (Southern Part)
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NEW JERSEY



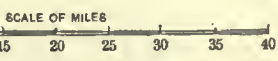
- Railroads
- Canals
- State Capitals
- County Seats
- Size of type indicates relative importance of places
- Principal Through Auto Routes
- Other Auto Routes

Hammond's Complete Map of New Jersey.
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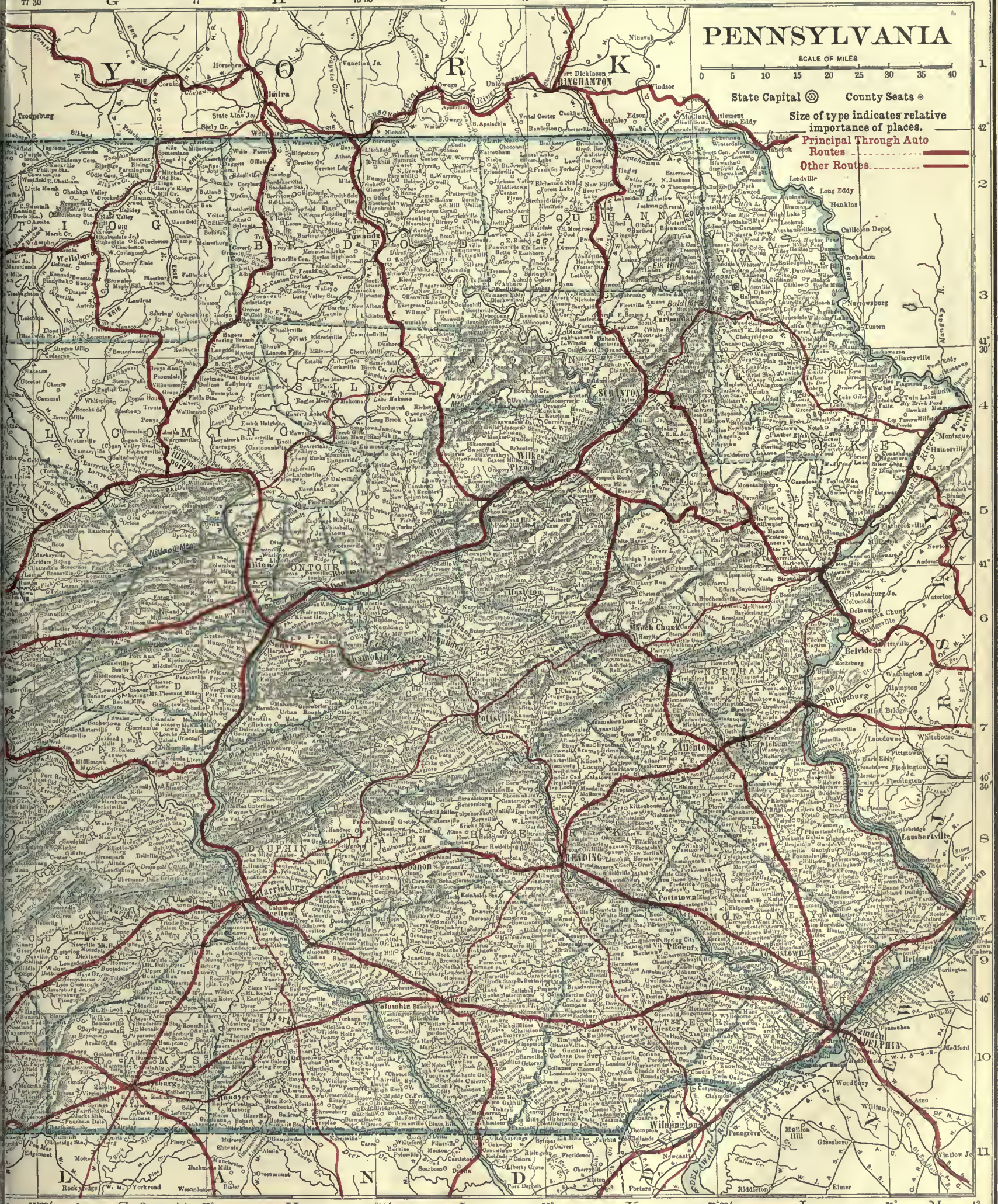
Hammond's Complete Map of Pennsylvania.
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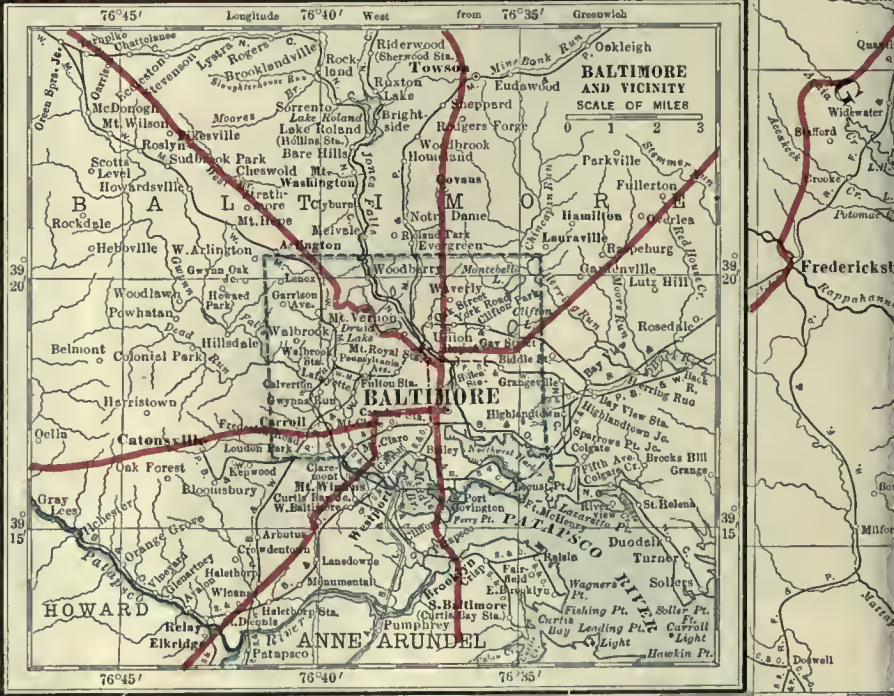
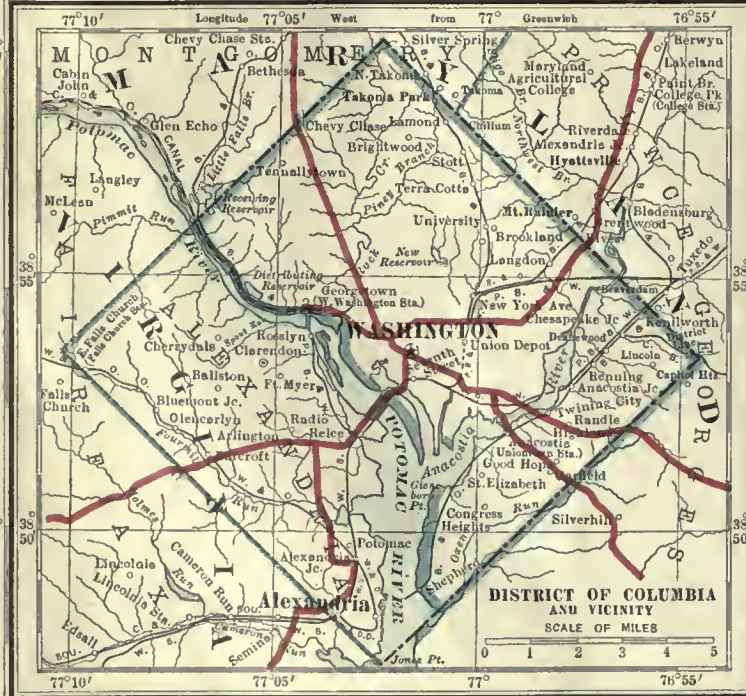
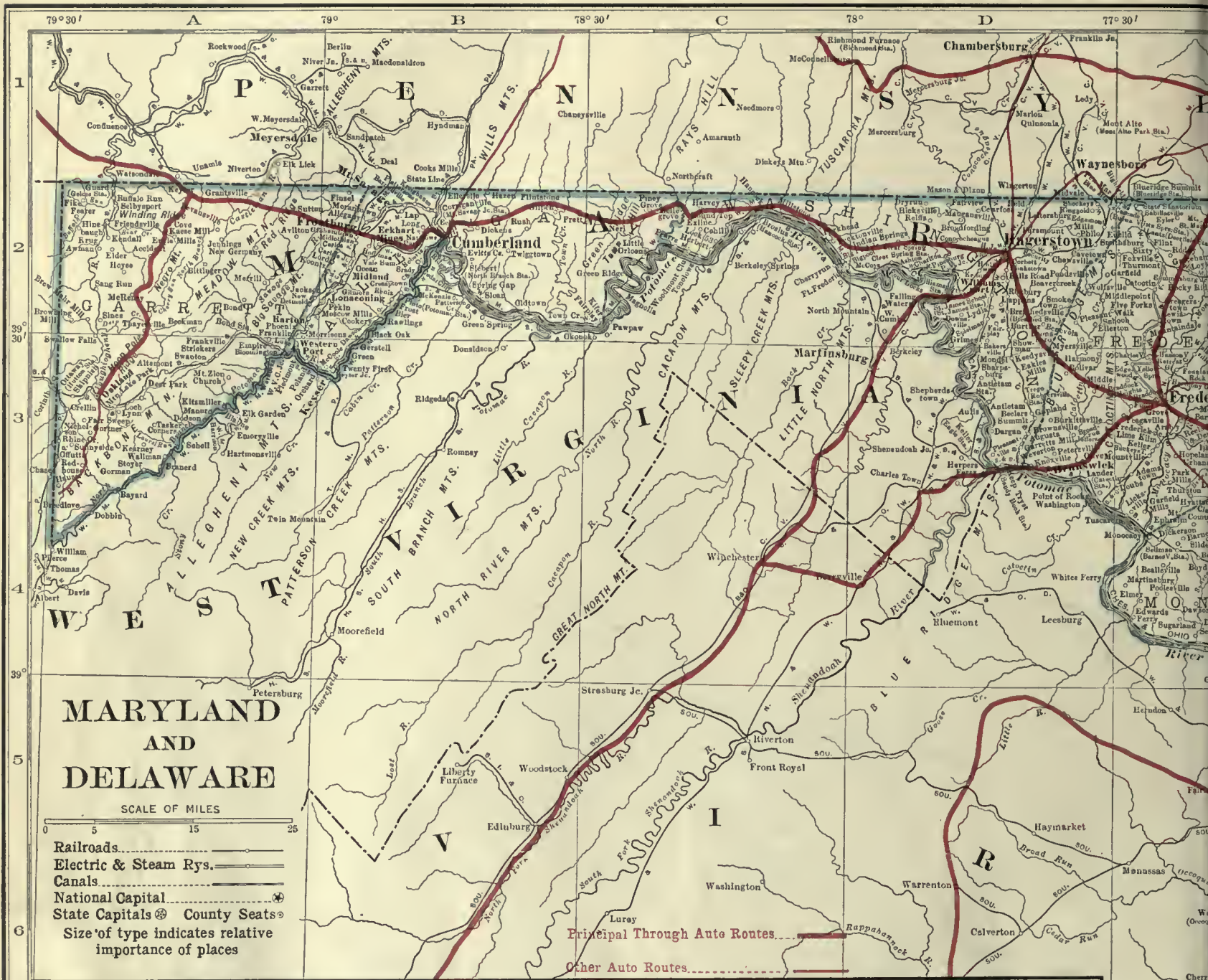
PENNSYLVANIA



State Capital County Seats

Size of type indicates relative importance of places.
Principal Through Auto Routes
Other Routes



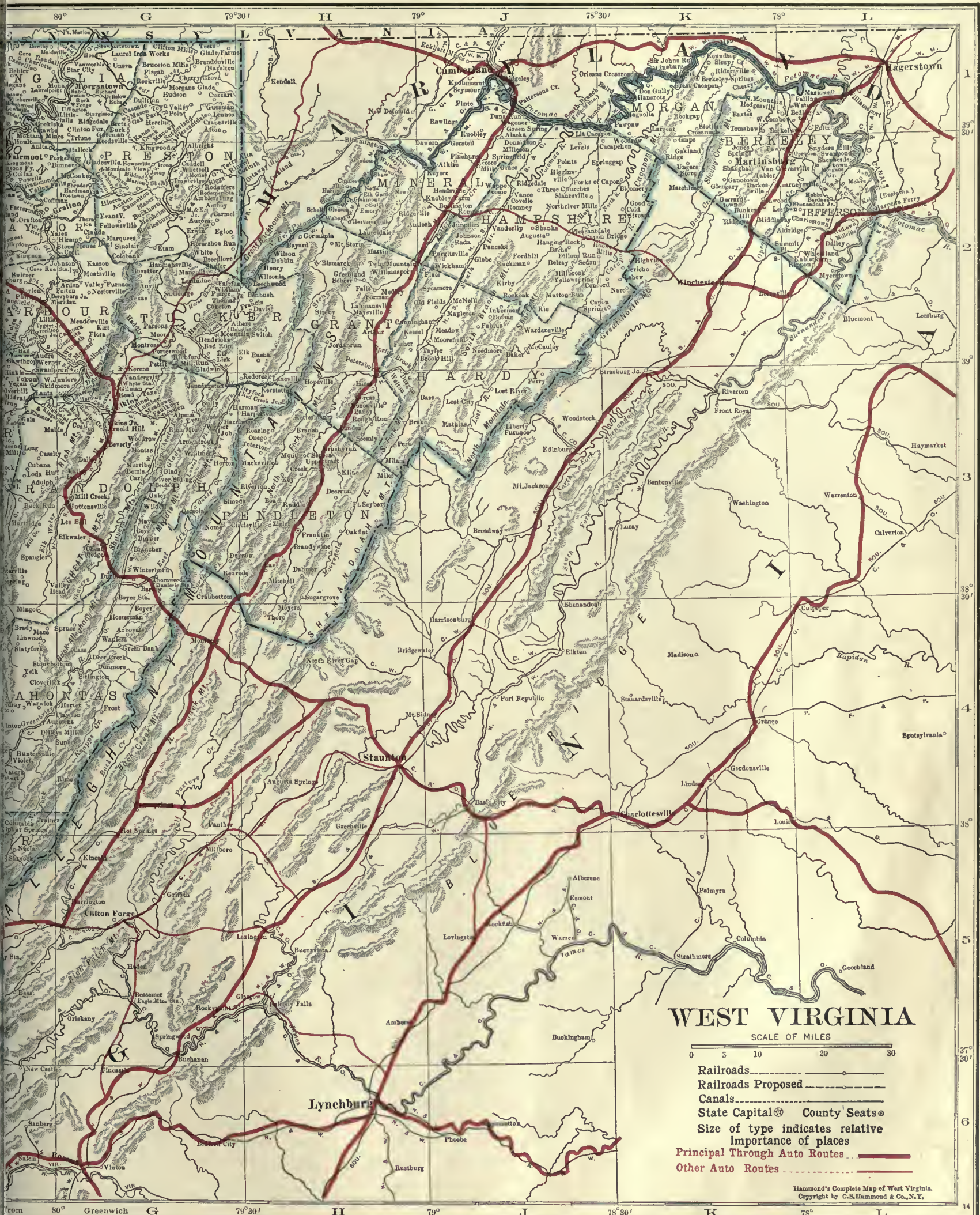




HAMMOND'S COMPLETE MAP OF MARYLAND AND DELAWARE
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Hammond's Complete Map of Virginia.
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WEST VIRGINIA



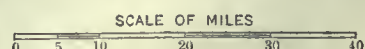
- Railroads ————
- Railroads Proposed - - - -
- Canals ————
- State Capital ⊙ County Seats ⊙
- Size of type indicates relative importance of places
- Principal Through Auto Routes ————
- Other Auto Routes ————

Hammond's Complete Map of West Virginia.
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NORTH CAROLINA



- Railroads
- Railroads Proposed
- Canals
- State Capital
- County Seats
- Size of type indicates relative importance of places

- Principal Through Auto Routes
- Other Auto Routes

Hammond's Complete Map of North Carolina. Copyright by C.S. Hammond & Co., N.Y.





SOUTH CAROLINA

SCALE OF MILES

- Railroads.....
- Railroads Proposed.....
- Canals.....
- State Capital ⊙ County Seats ⊙
- Size of type indicates relative importance of places

Principal Through Auto Routes.....
Other Auto Routes.....

J 17

Hammond's Complete Map of South Carolina,
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GEORGIA

Northern Part

SCALE OF MILES

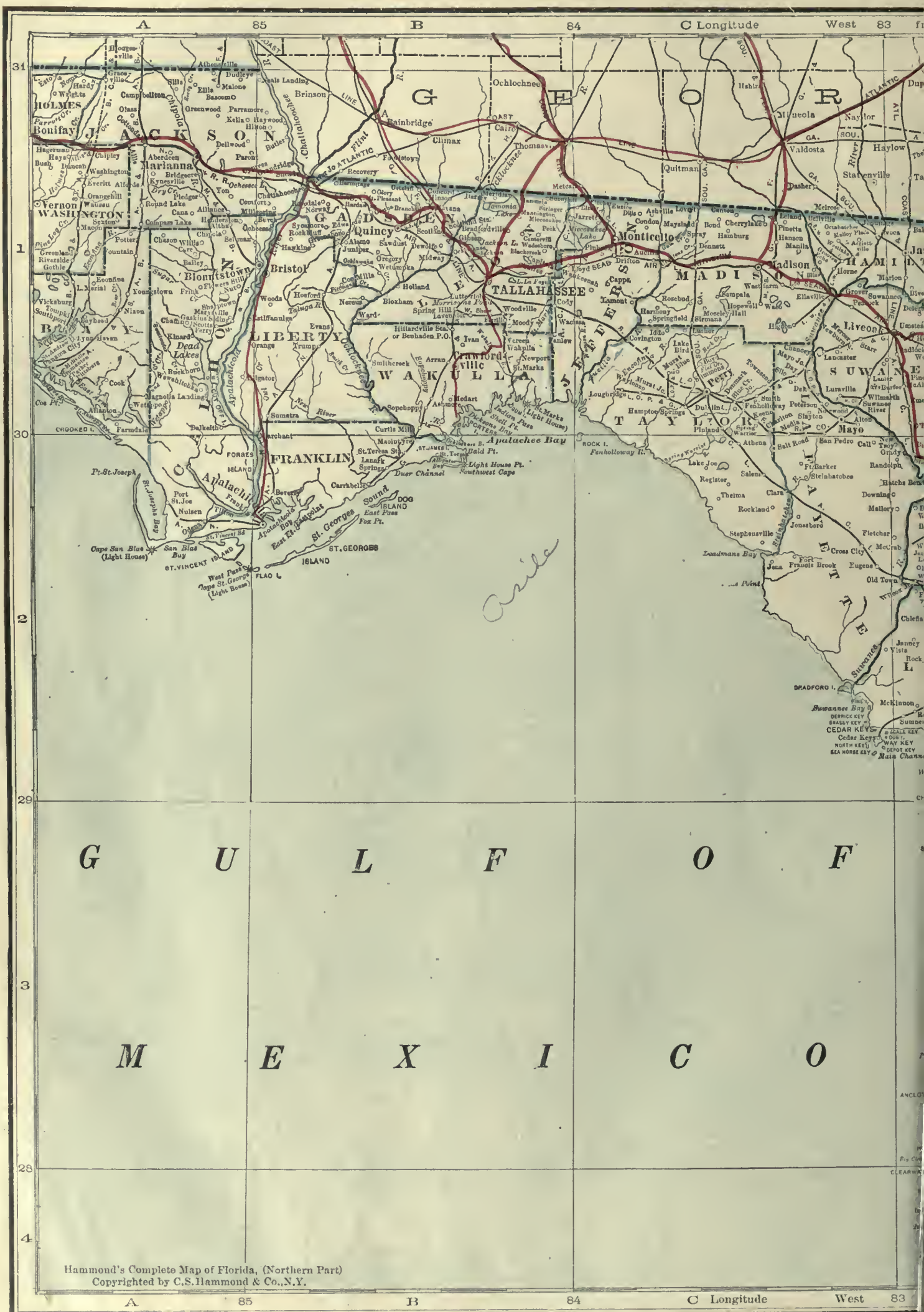
- Railroads.....
- Railroads Proposed.....
- State Capitals ⊙ County Seats ⊙
- Size of type indicates relative importance of places
- Principal Through Auto Routes ———
- Other Auto Routes - - - - -



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Hammond's Complete Map of Florida, (Northern Part)
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FLORIDA

Railroads ————
 Railroads Proposed ————
 Canals ————
 State Capital ⊗ County Seats ⊙
 Size of type indicates relative importance of places

Principal Through Auto Routes ————
 Other Auto Routes ————





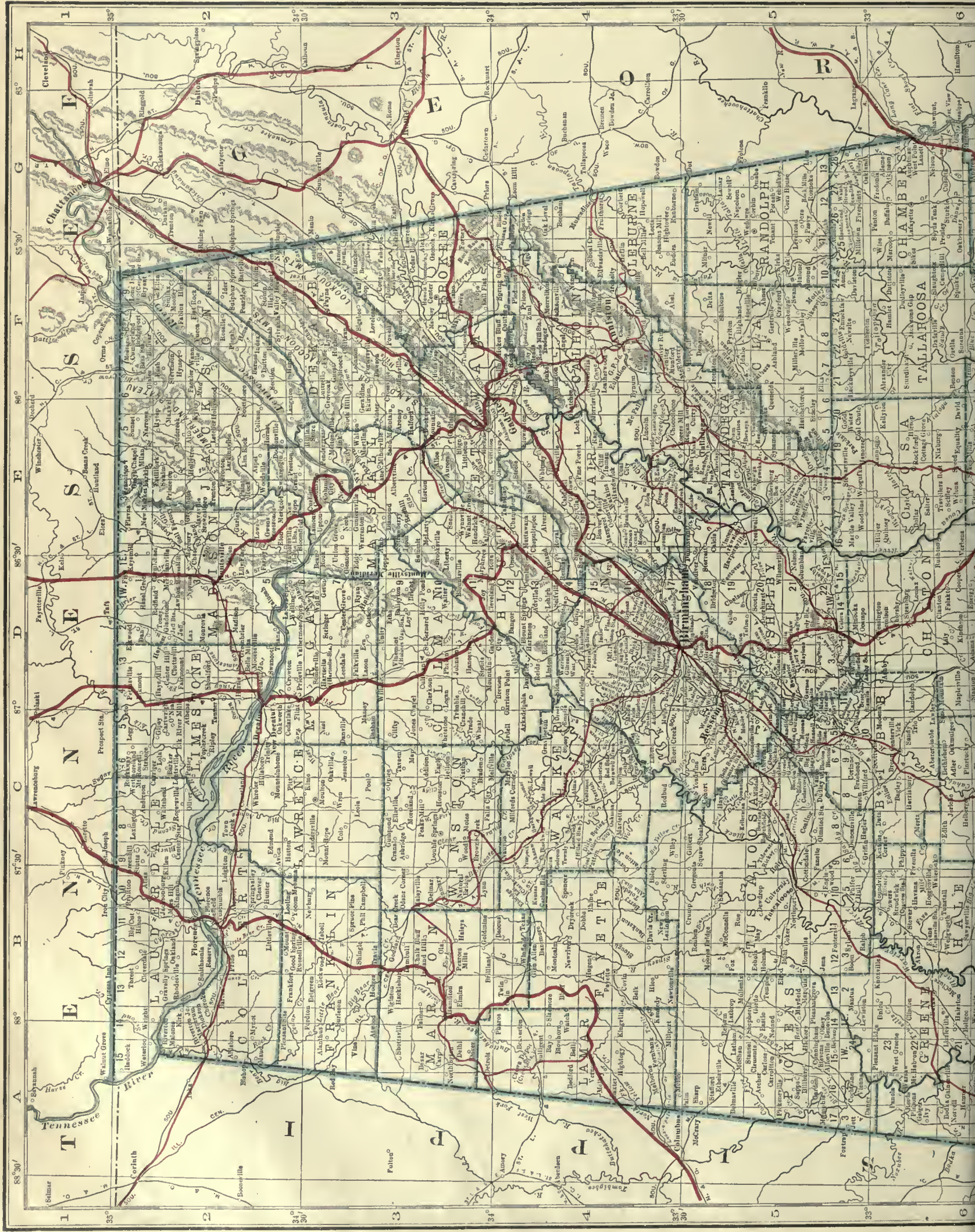
Principal Through Auto Routes
Other Auto Routes

0 5 10 20 30

0 5 10 20 30 40

(Light House)
LOGGERHEAD
KEY
Pt. Jefferson
BIRD KEY

Hammond's Complete Map of
Copyrighted by C.S. Hammond





ALABAMA

SCALE OF MILES
0 5 10 20 30 40

- Railroads
- Railroads Proposed
- State Capital & County Seats
- Size of type indicates relative importance of places
- Principal Through Auto Routes
- Other Auto Routes

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MISSISSIPPI

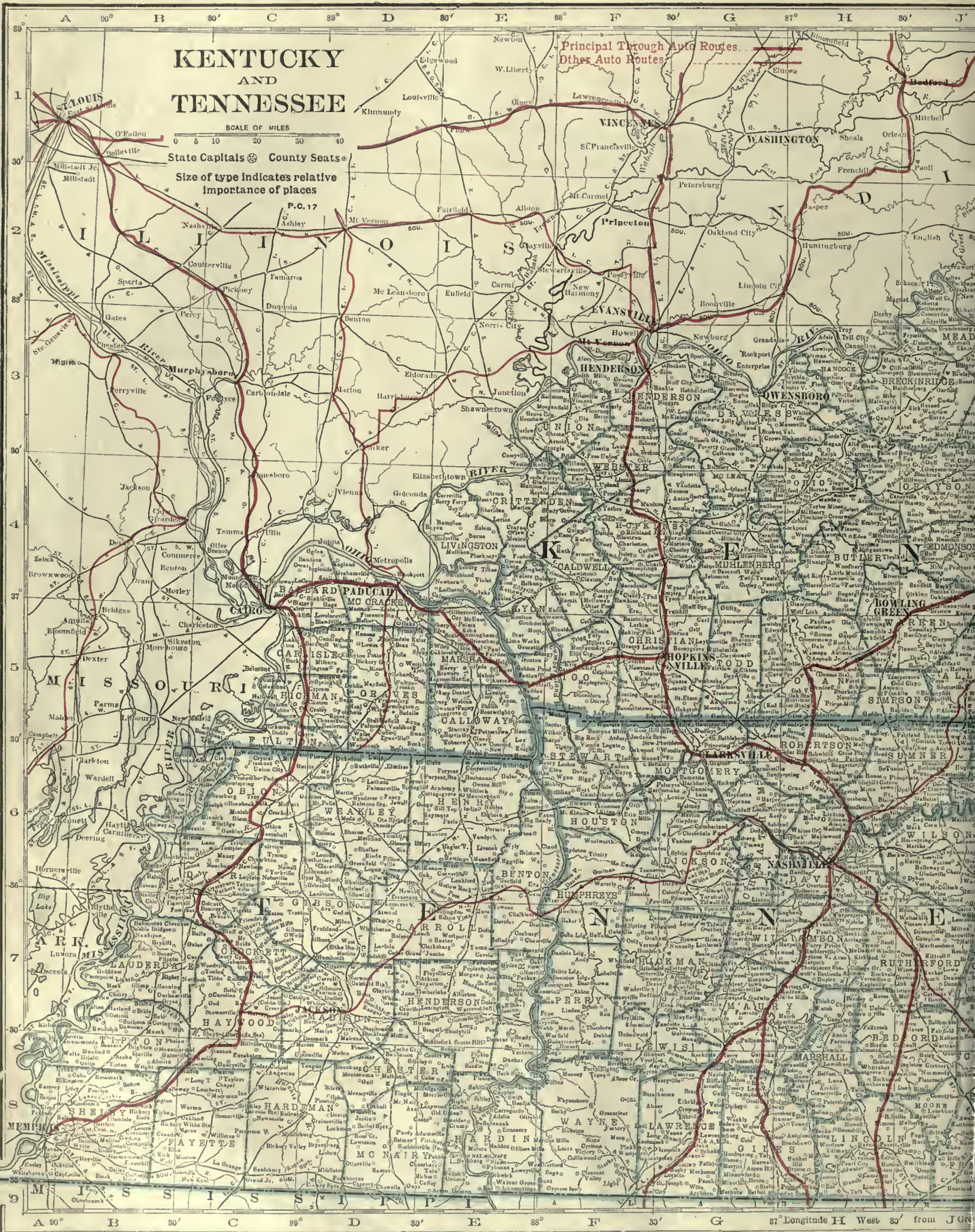
SCALE OF MILES
0 5 10 20 30 40

- Railroads ————
- Railroads Proposed - - - - -
- State Capitals & County Seats ●
- Size of type indicates relative importance of places

Proposed System of State Highways



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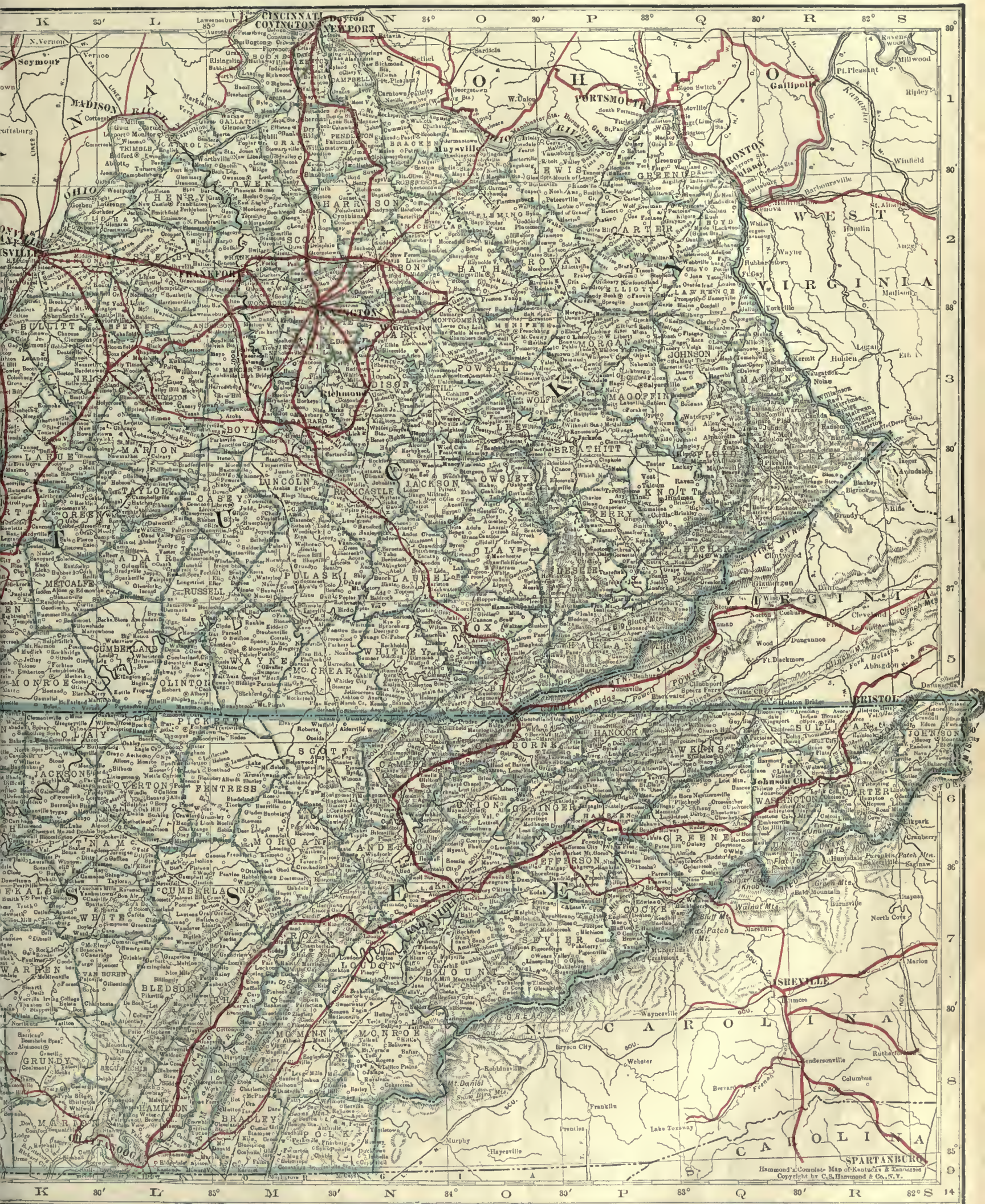


KENTUCKY AND TENNESSEE

SCALE OF MILES
0 5 10 20 30 40

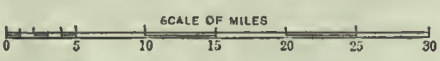
State Capitals County Seats
Size of type indicates relative importance of places

Principal Through Auto Routes
Other Auto Routes





OHIO (Northern Part)



State Capital County Seats
Railroads Canals

Size of type indicates relative importance of places

Hammond's Complete Map of Ohio, (Northern Part)
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OHIO

(Southern Part)



- State Capitals County Seats
- Railroads Canals
- Size of type indicates relative importance of places
- Main Auto Routes
- Interurban Electric Lines
- Interurban Electric Lines on
- Main Auto Routes

Hammond's Complete Map of Ohio, Southern Part.
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MICHIGAN (Northern Peninsula)

SCALE OF MILES
0 10 20 30 40 50

State Capital (L) County Seats (C)
Size of Type Indicates relative importance of places

Principal Through Auto Routes (thick red line)
Other Auto Routes (thin red line)

STANDARD ROCK
L A K E

S U P E R I O R

M I C H I G A N

L A K E

M I C H I G A N

L A K E

M I C H I G A N

L A K E

M I C H I G A N

ISLE ROYAL
Part of Keweenaw County
SCALE SAME AS MAIN MAP

SEABOARD
Lock Pt. Bluff Pt. Harbor

PASSAGE I.
Lock Pt. Bluff Pt. Harbor

SEABOARD
Lock Pt. Bluff Pt. Harbor

PASSAGE I.
Lock Pt. Bluff Pt. Harbor

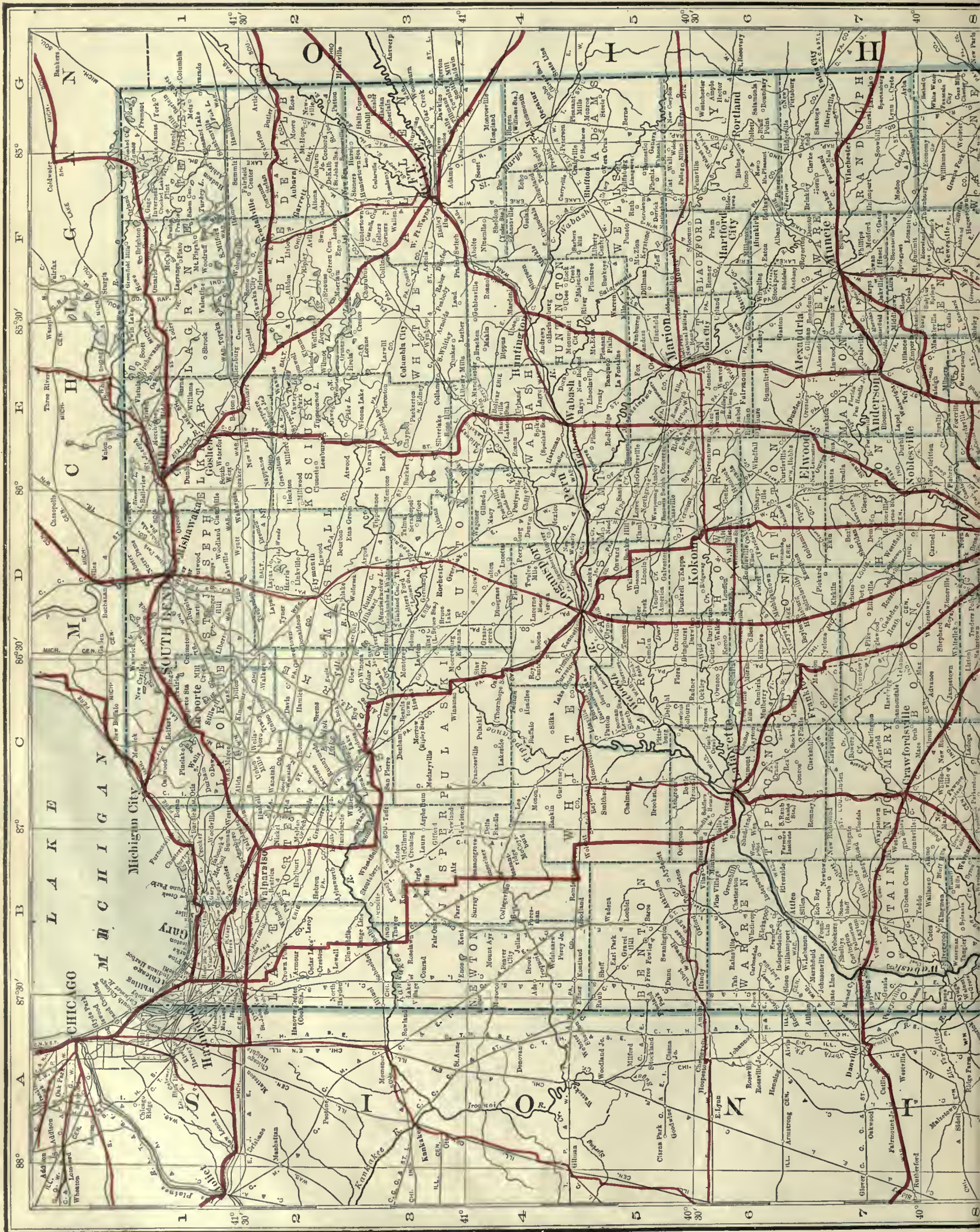
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MICHIGAN (Southern Peninsula)

SCALE OF MILES
0 10 20 30 40
25 MILES TO THE INCH

State Capital County Seats
Principal Through Auto Routes
Other Auto Routes
Hammond's 8 x 11 Map of Michigan
(Southern Peninsula)
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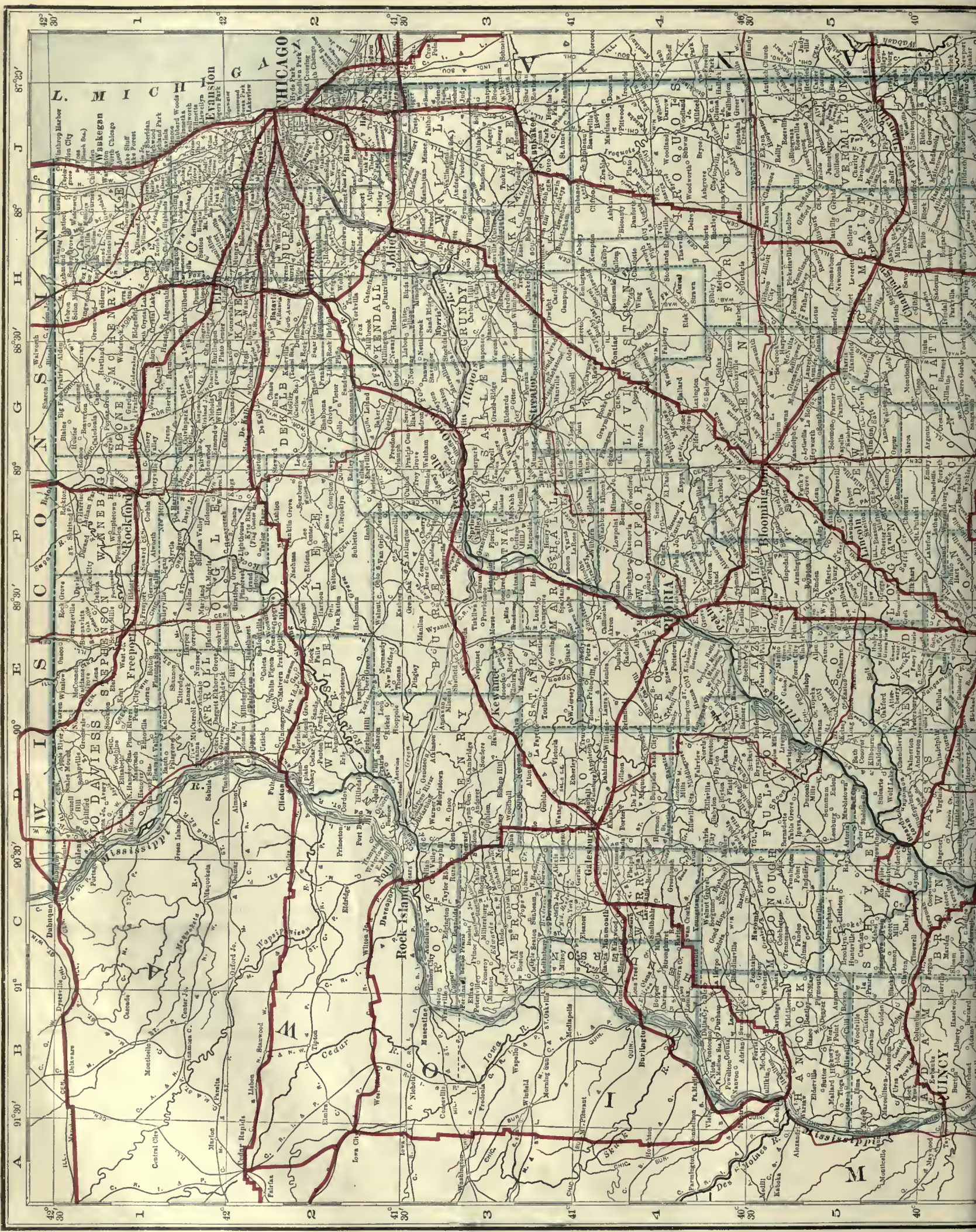


SCALE OF MILES
0 5 10 20 30 40

State Capital ⊗ County Seats ⊙
Size of type indicates relative importance of places.

Principal Through Auto Routes
Other Auto Routes

Hammond's Complete Map of Indiana
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Principal Through Auto Routes
 Other Auto Routes

ILLINOIS



State Capital ⊙ County Seats ⊕
 Size of type indicates relative importance of places

Hammonds 11 x 16 Map of Illinois
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WISCONSIN

(NORTHERN SECTION)



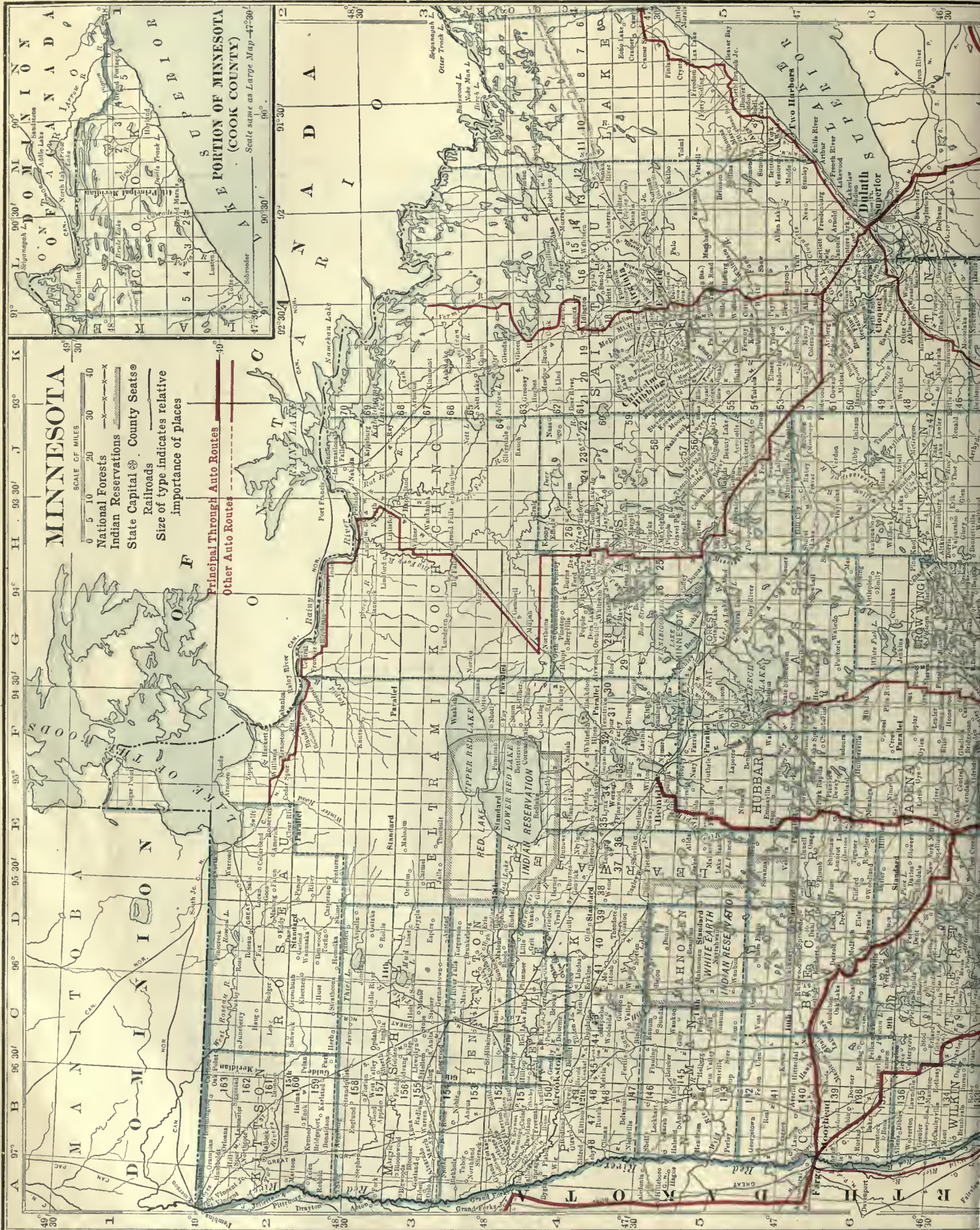
State Capital ⊙ County Seats ⊙
 Size of type indicates relative importance of places

Principal Through Auto Routes ———
 Other Auto Routes - - - - -

Hammond's Complete Map of Wisconsin
 (Northern Section)
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Map grid labels: H 89°30', J 89°, K 88°30', L 88°, M 87°30', N 87°, O 86°30'.
 Latitude labels: 41°30', 42°, 43°, 44°, 45°, 46°30', 47°.

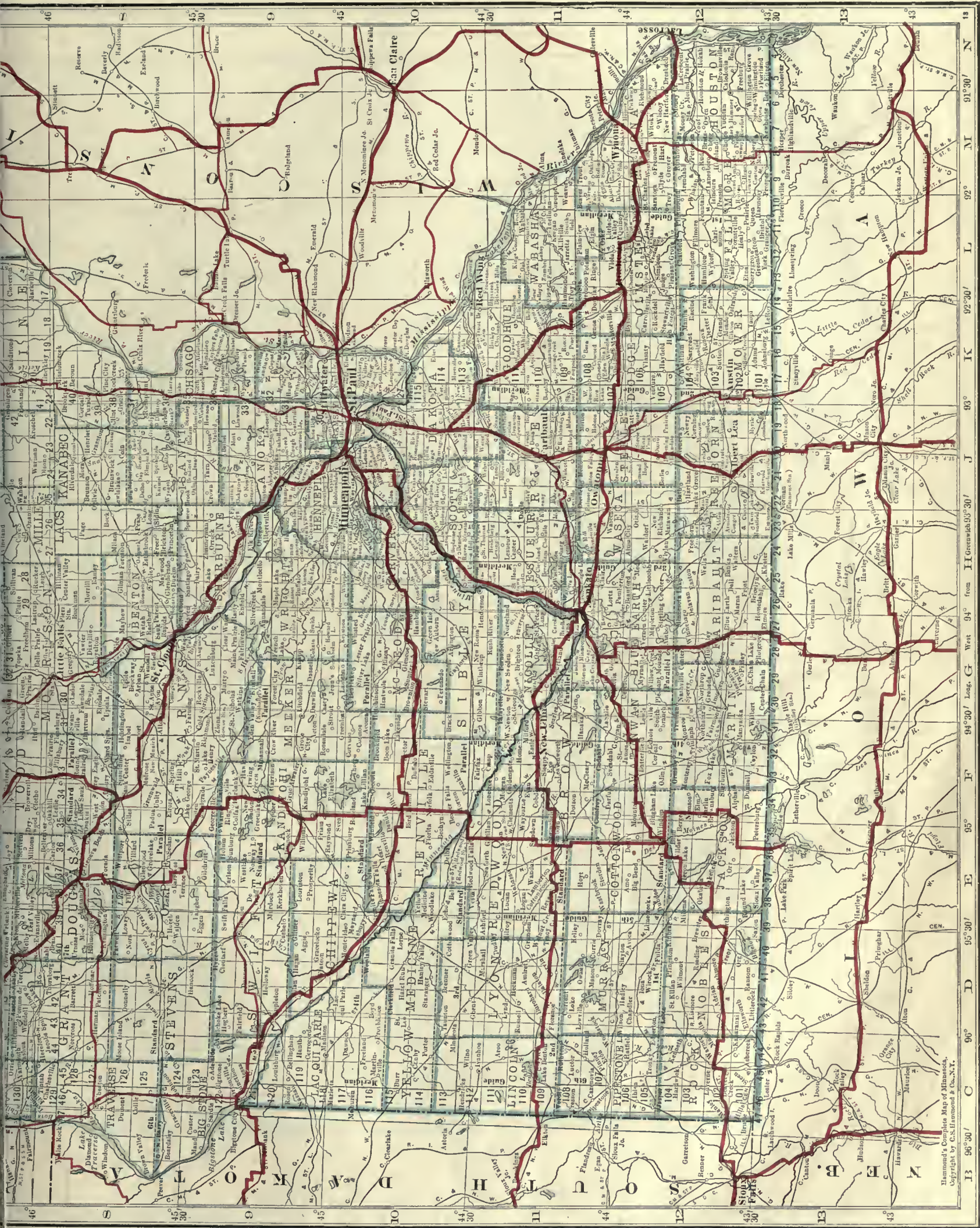




MINNESOTA

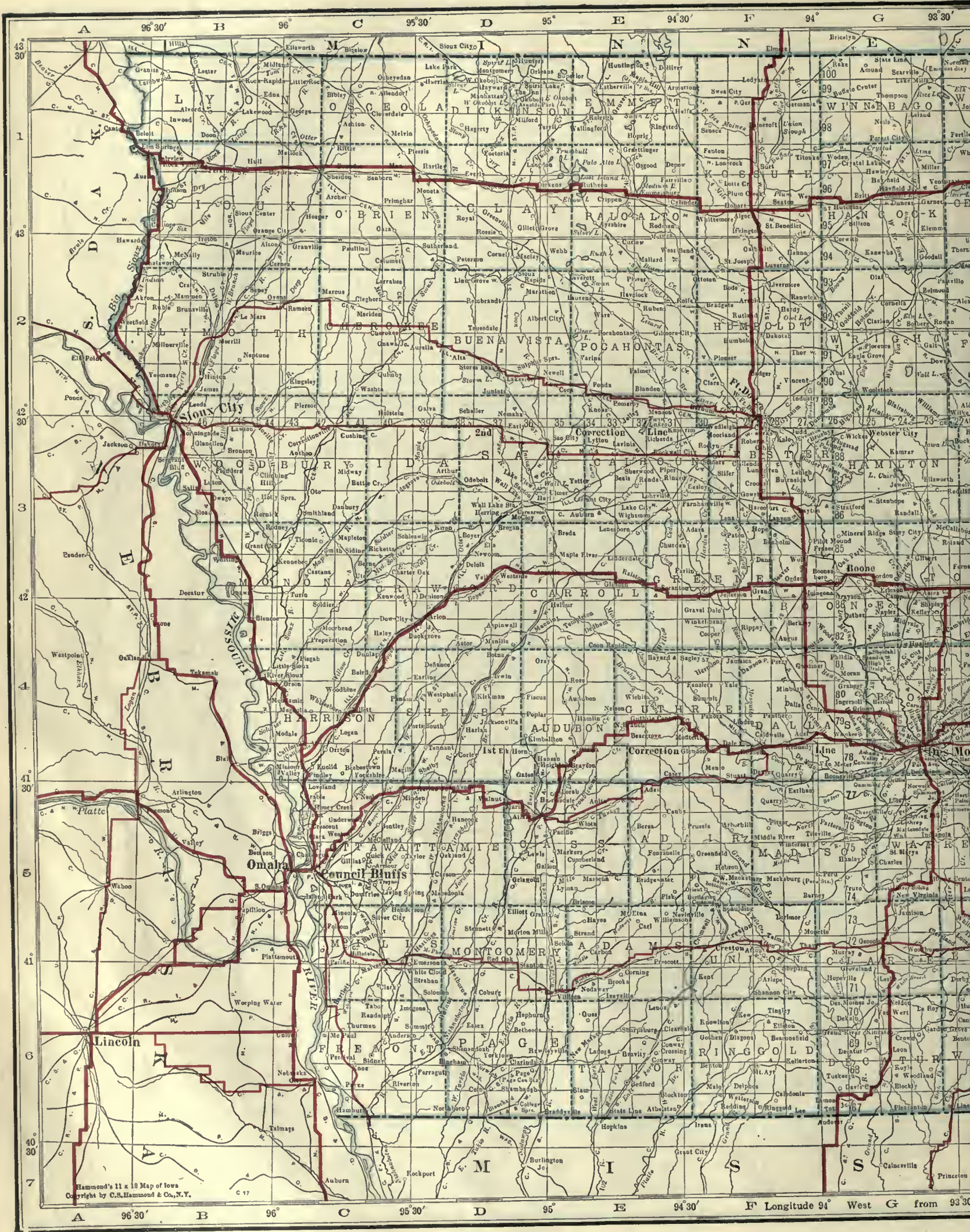
- SCALE OF MILES
0 5 10 20 30 40
- National Forests
 - Indian Reservations
 - State Capital & County Seats
 - Railroads
 - Size of type indicates relative importance of places

Principal Through Auto Routes
Other Auto Routes



13 96°30' C 90° D 95°30' E 95° F 94°30' G West 94° from H Greenish 93°30' J 93° K 92°30' L 92° M 91°30' N

Hammond's Complete Map of Minnesota, Copyright by C.S. Hammond & Co., N.Y.



Hammood's 11 x 18 Map of Iowa
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Principal Through Auto Routes ———
Other Auto Routes ———

IOWA



State Capital ⊙ County Seats ⊙

Size of type indicates relative importance of places.





MISSOURI

Northern Part

SCALE OF MILES

0 5 10 20 30

Railroads
State Capitals
County Seats
Size of type indicates relative importance of places

Principal Through Auto Routes
Other Auto Routes



Principal Through Auto Routes.....
 Other Auto Routes.....



MISSOURI

Southern Part

SCALE OF MILES

Railroads
State Capital
County Seats
Size of type indicates relative importance of places

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Principal Through Auto Routes
Other Auto Routes

ARKANSAS
Western Part

SCALE OF MILES
0 5 10 20 30

Railroads
Railroads Proposed
State Capital
County Seats
Size of type indicates relative importance of places

Hammond's Complete Map of Arkansas. Writers Part.
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ARKANSAS

Eastern Part

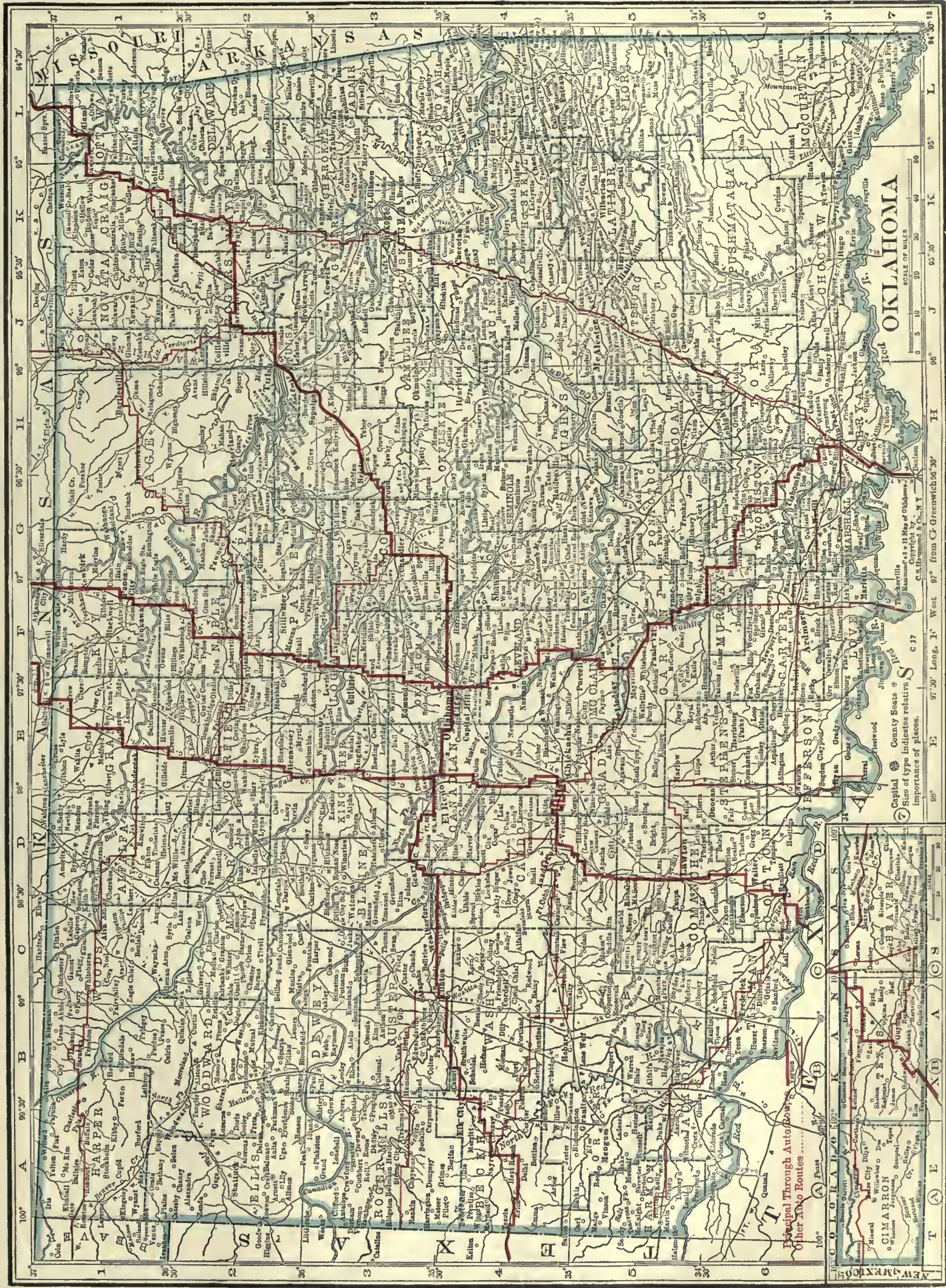
SCALE OF MILES
0 5 10 20 30

- Railroads Proposed
- Railroads Proposed
- State Capital
- County Seats
- Size of type indicates relative importance of places

Principal Through Auto Routes
Other Auto Routes

Hammond's Complete Map of Arkansas, Eastern Part.
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OKLAHOMA

Scale of Miles
0 5 10 20 30 40 50 60

94° 30' 95° 96° 97° 98° 99° 100°

94° 30' 95° 96° 97° 98° 99° 100°

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Capital County Seats
Size of type indicates relative importance

Principal Through Automobile Routes
Other Auto Routes



TEXAS (Western Part)

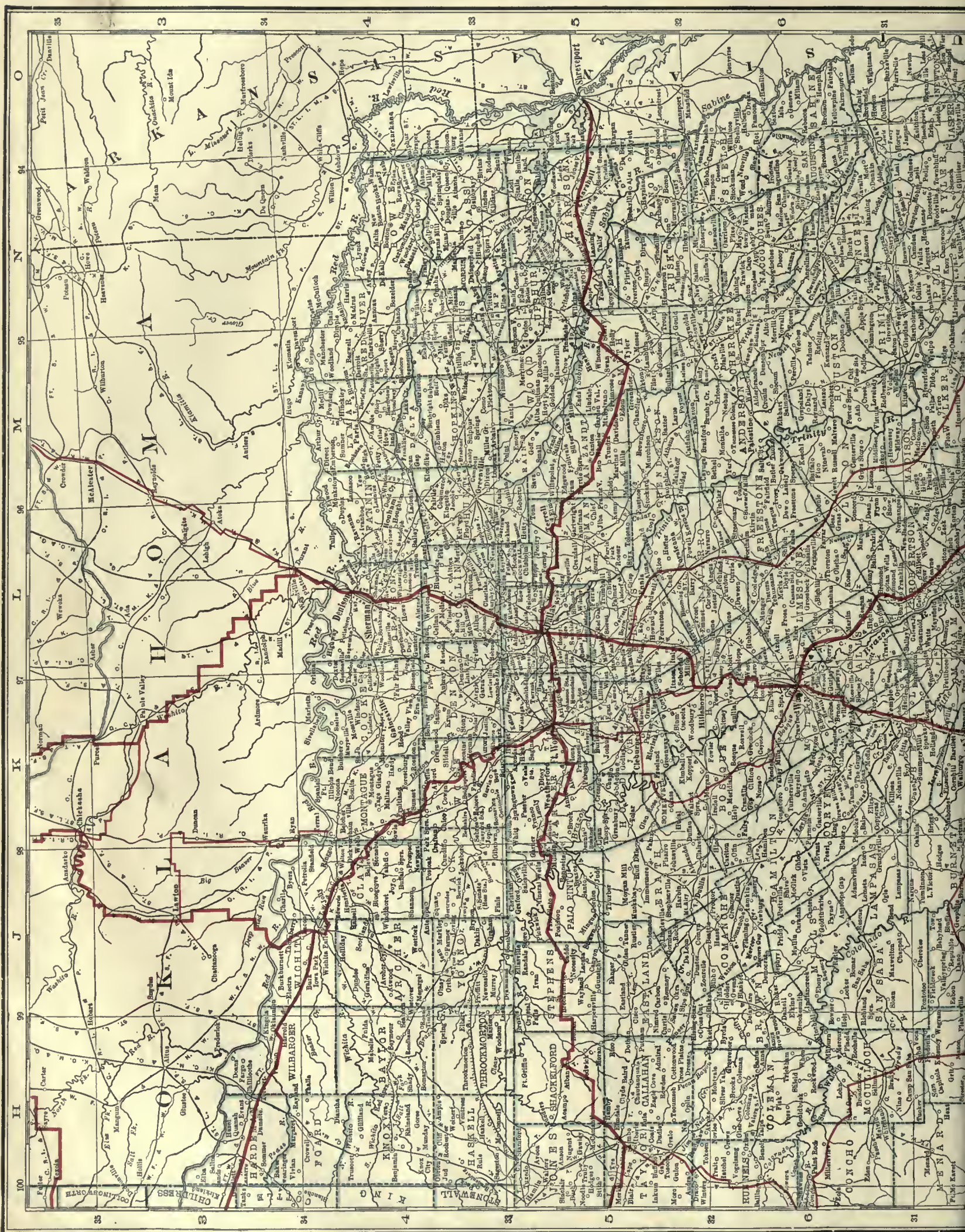
SCALE OF MILES
0 5 10 20 30 40 50 60

State Capital County Seats

Size of type indicates relative importance of places

Principal Through Auto Routes
Other Auto Routes

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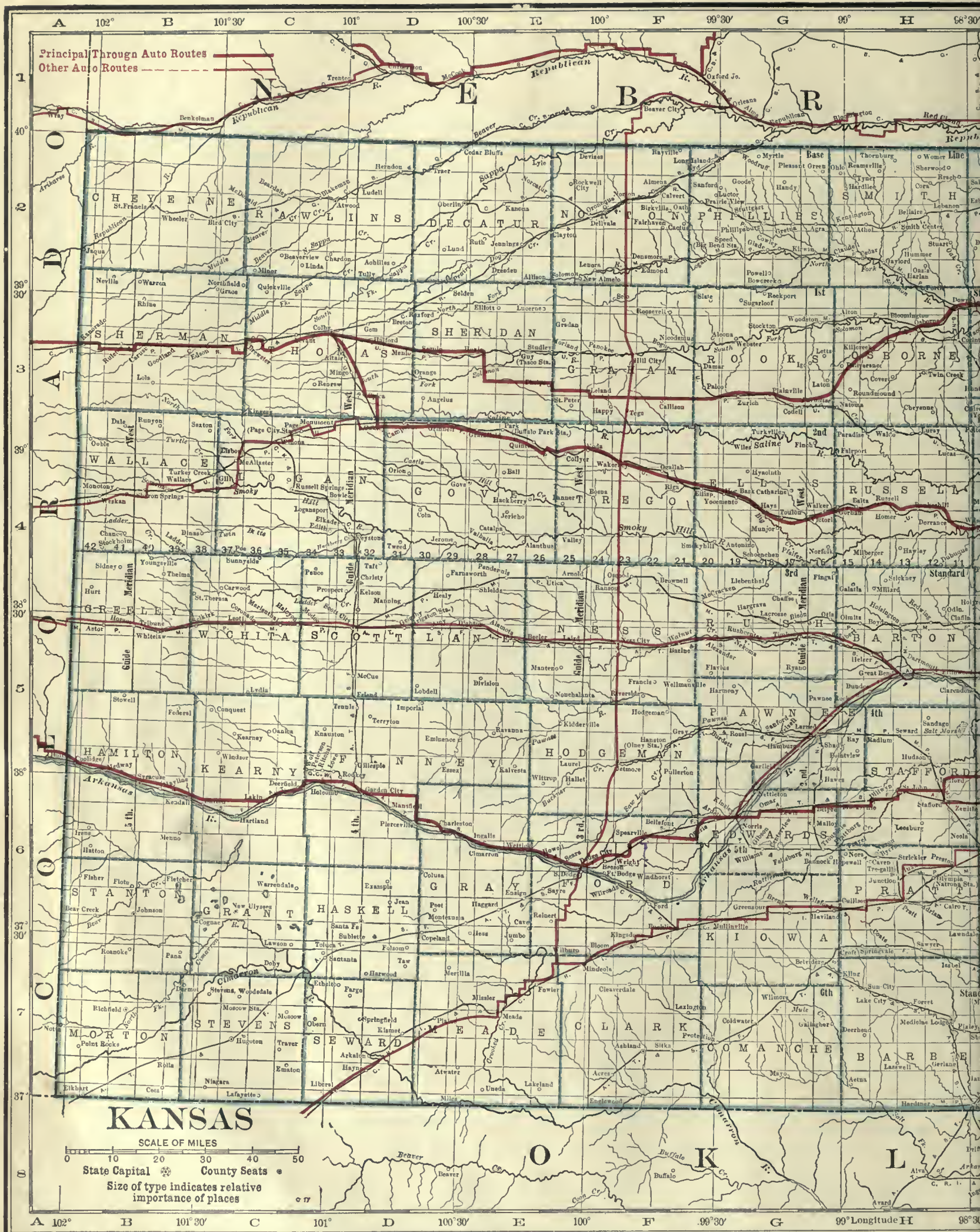


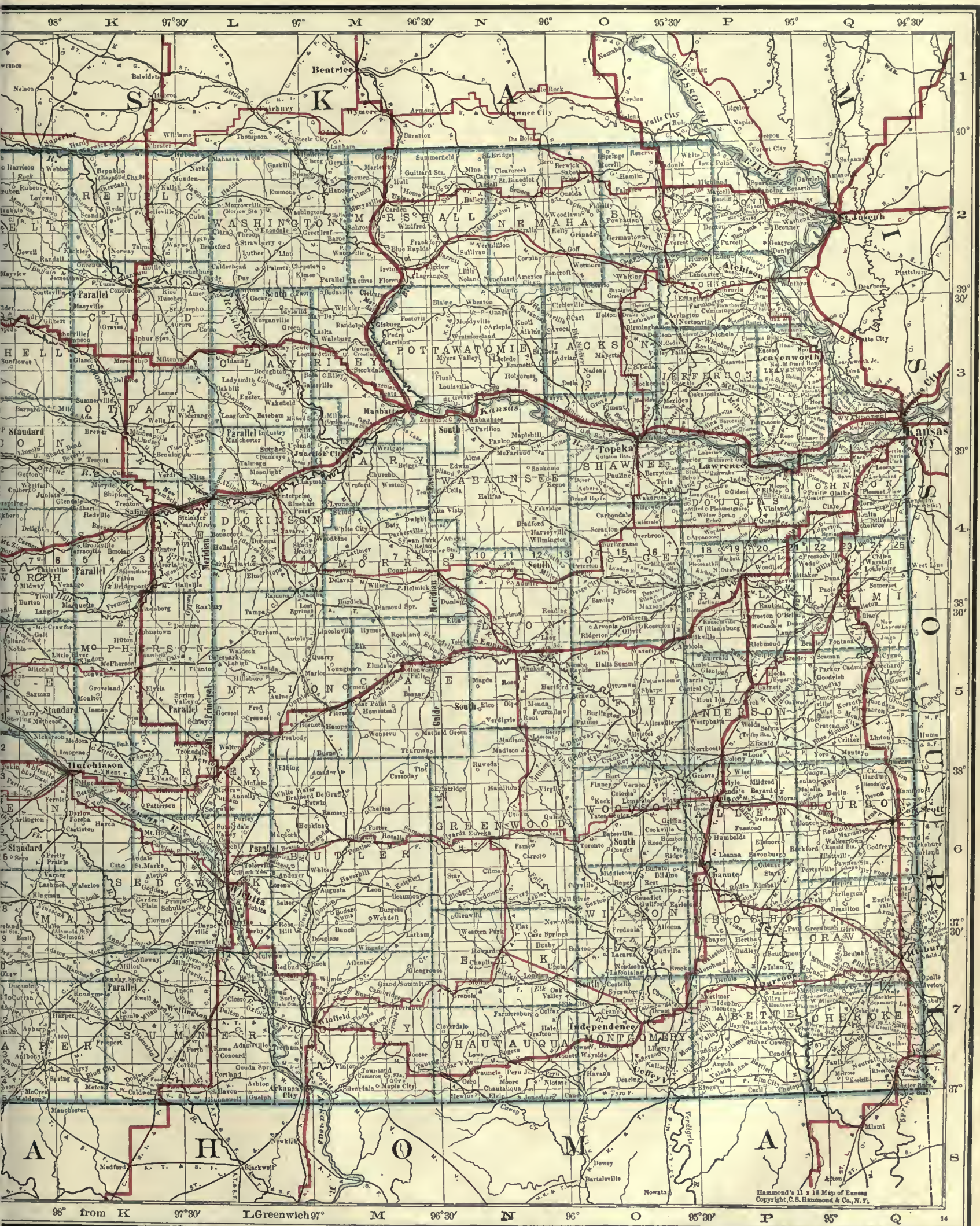
TEXAS (Eastern Part)



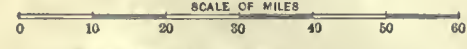
State Capital @ County Seats *
Size of type indicates relative importance of places.
Principal Through Auto Routes ———
Other Auto Routes - - - - -

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Hammond's 11 x 18 Map of Kansas
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National Forest Boundaries — x — x — x — x —
 Military Reservation Boundaries — hatched pattern —
 State Capital ⊙ County Seats ⊙
 Size of type indicates relative importance of places.

Hammond's Complete Map of Nebraska
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Principal Through Auto Routes
 Other Auto Routes



Longitude K West 99° from L Greenwich M 98° N O 97° P Q 96° R



NORTH DAKOTA

State Capital County Seat
 Size of type indicates relative importance of places

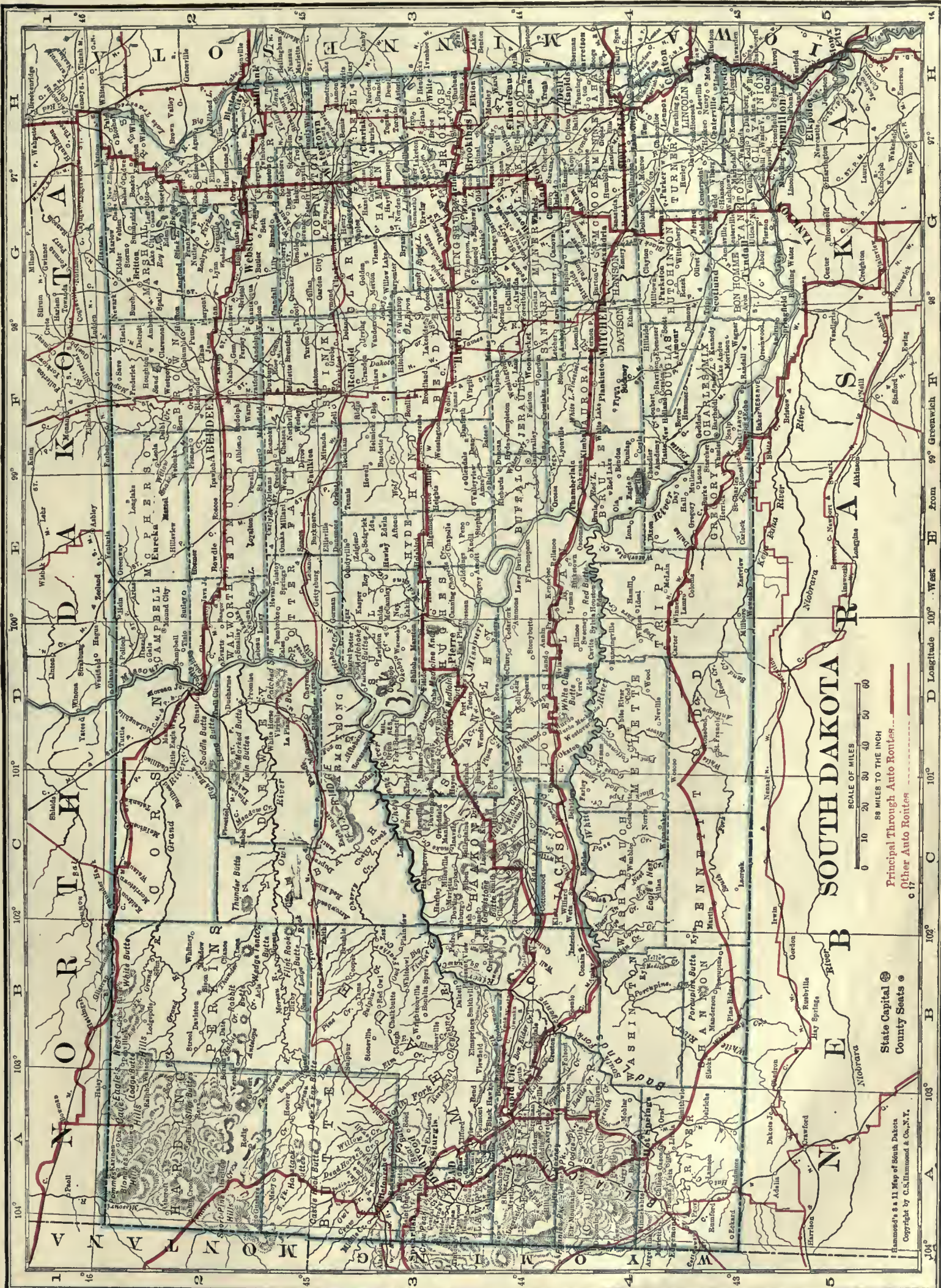
SCALE OF MILES
 0 20 40 60 80 100

0 20 40 60 80 100 KILOMETERS

Principal Through Auto Routes

Other Auto Routes

0 17
 H. W. Johnston & Co., N.Y.
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A 116° B 115° C 114° D 113° E 112° F 111° G 110° H 109° I 108° J 107° K 106° L 105° M 104°
 1 2 3 4 5
 48° 46° 44° 42° 40°

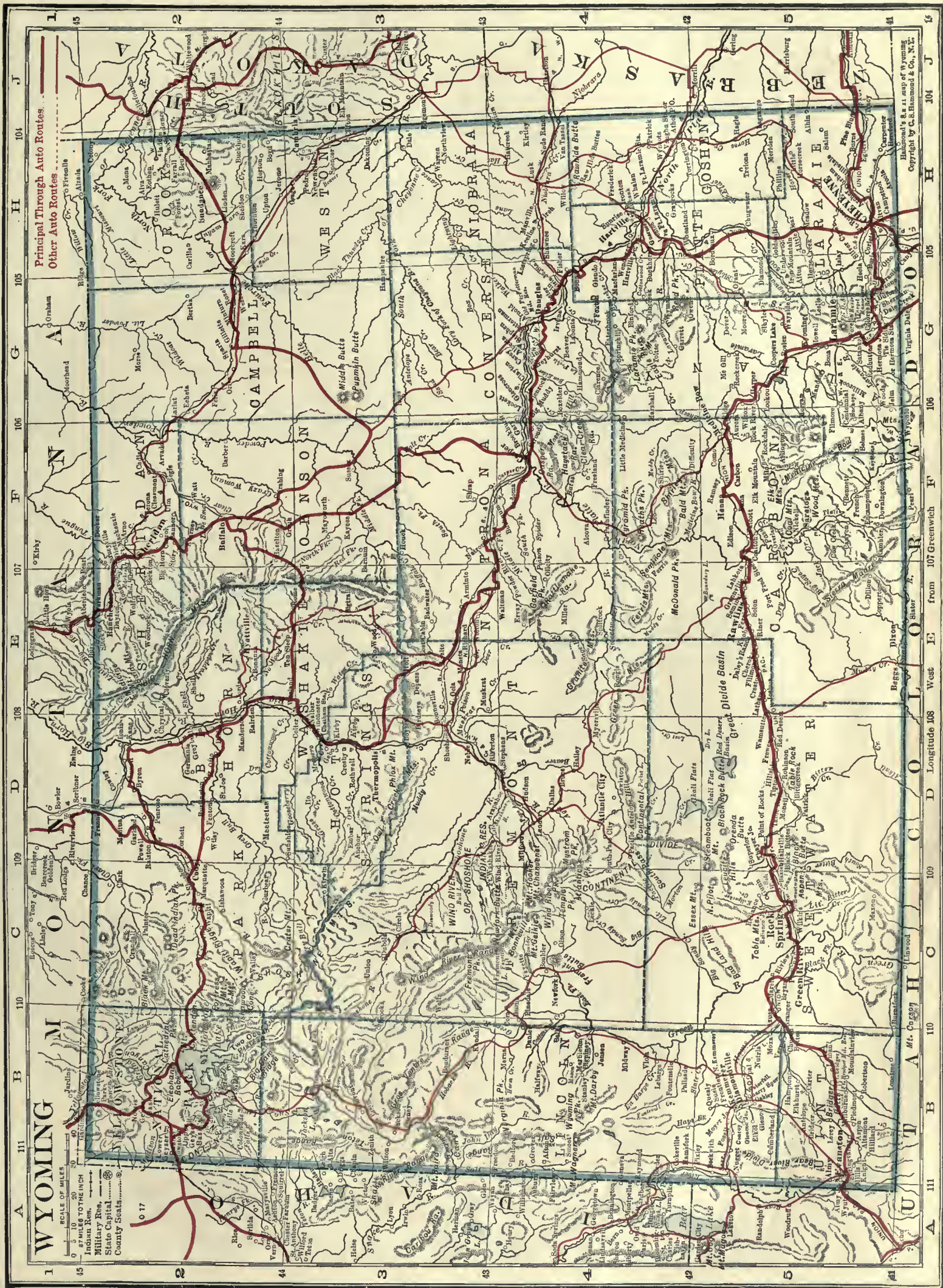
MONTANA

SCALE OF MILES
 10 5 0 10 20 30 40 50

- 54 MILES TO THE INCH
- Military Reservations
- Indian Reservations
- State Capital
- County Seats

Principal Through Auto Routes
 Other Auto Routes

E 17
 Hammond's 8 x 11 Map of Montana
 Copyright by C.S. Hammond & Co., N.Y.







COLORADO
Western Part



- Railroads ———
- Railroads Proposed - - - - -
- National Parks ———
- State Capital @ County Seats @
- Size of type indicates relative importance of places

Principal Through Auto Routes ———
Other Auto Routes - - - - -

Hammond's Complete Map of Colorado, Western Part.
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COLORADO

Eastern Part

SCALE OF MILES

- Railroads Existing
- Railroads Proposed
- State Capital
- County Seats
- Size of type indicates relative importance of places

Hanneman's Complete Map of Colorado, Eastern Part.
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ARIZONA

SCALE OF MILES
 0 5 10 20 30 40 50 60
 47 MILES TO THE INCH

State Capital & County Seats

Principal Through Auto Routes

Other Auto Routes

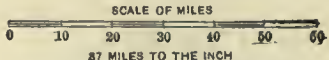
Size of type indicates relative importance of places

Hammond's 8 x 11 Map of Arizona
 Copyright by C.S. Hammond & Co., N.Y.





UTAH



- State Capital (circle with star)
- County Seats (circle)
- Military Reservation Boundaries (dashed line)
- Indian (hatched area)
- Forest Reserve (stippled area)
- Principal Through Auto Routes (thick red line)
- Other Auto Routes (thin red line)

Hammond's 6 x 11 Map of Utah
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IDAHO

SCALE OF MILES
 10 5 0 10 20 30 40 50 60
 47 MILES TO THE INCH

State Capital County Seats
 Principal Through Auto Routes
 Other Auto Routes

Hammond 2 x 11. Map of Idaho.
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Principal Through Auto Routes ———
Other Auto Routes - - - - -

Longitude K West 120° from L Greenwich M 118° N O 116° P Q 114° R

OREGON (Western Part)

SCALE OF MILES
0 5 10 15 20 25 30 35 40

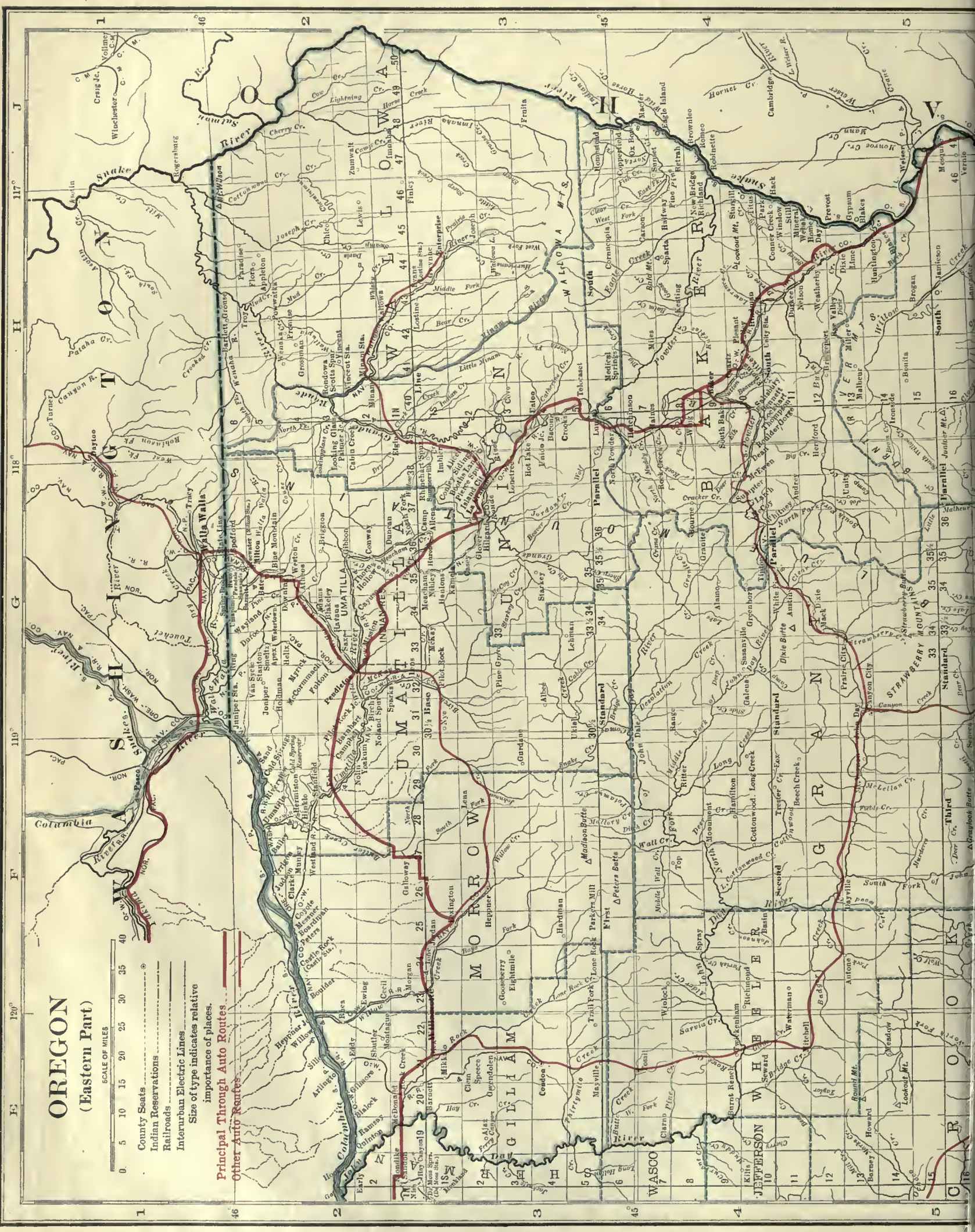
- State Capital
 - National Parks
 - Indian Reservations
 - Railroads
 - Interurban Electric Lines
 - County Seats
- Size of type indicates relative importance of places.

Principal, Through Auto Routes
Other Auto Routes





Hammond's Complete Map of Oregon (Westera Part)
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OREGON (Eastern Part)

SCALE OF MILES

- County Seats
- Indian Reservations
- Railroads
- Interurban Electric Lines
- Size of type indicates relative importance of places.

Principal Through Auto Routes.

Other Auto Routes.







CALIFORNIA

(Northern and Central Part)



- State Capital (circle with dot)
- County Seats (circle)
- National Parks (dashed line)
- National Forests (dotted line)
- Indian Reservations (hatched area)
- Size of type indicates relative importance of places.

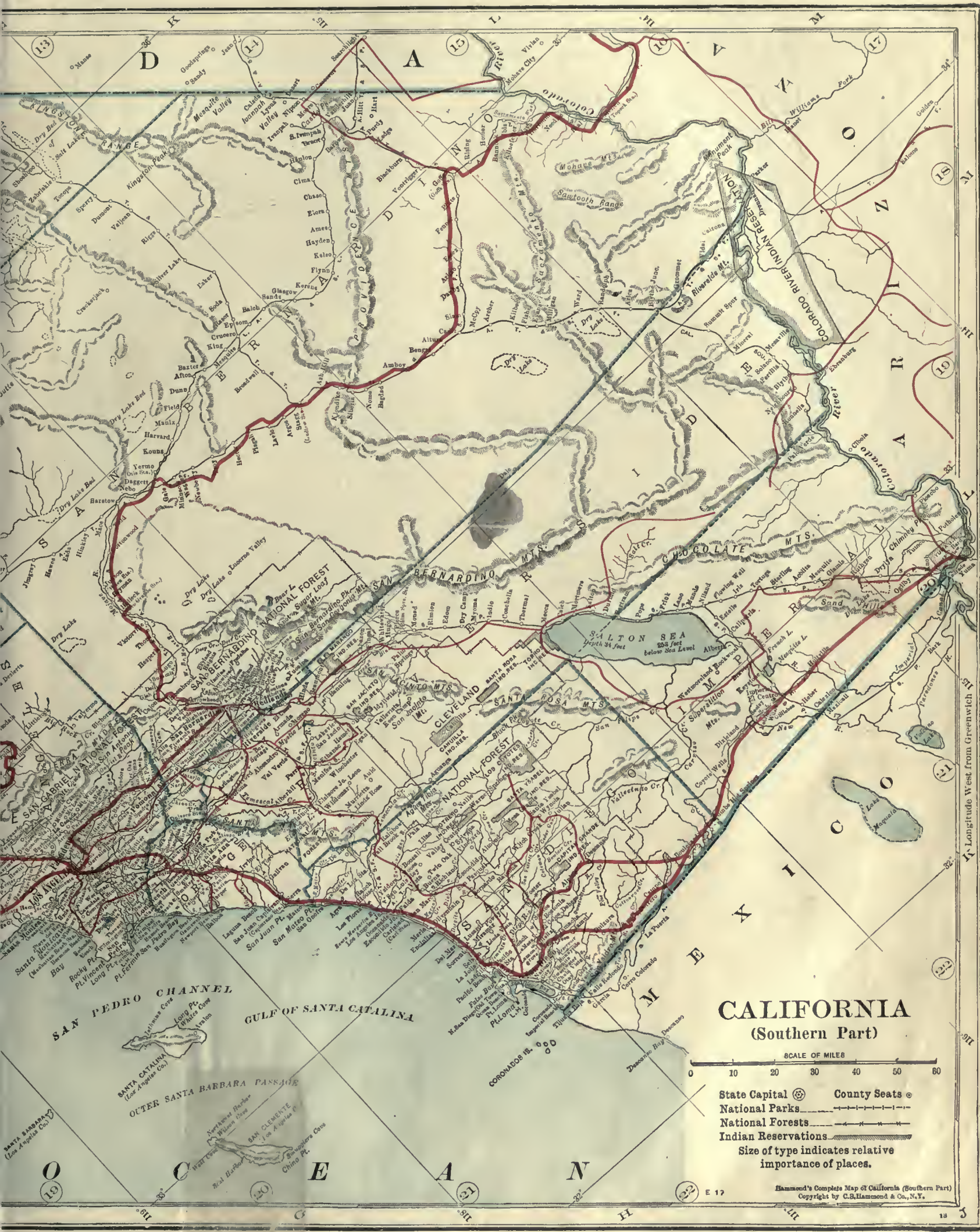
- Principal Through Auto Routes (thick red line)
- Other Auto Routes (thin red line)

Hammam's Complete Map of California (Northern and Central Part)
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A. 124° B. 123° C. 122° Longitude West D from Greenwich 121° E. 120° F. 39° 38° 37° 36°

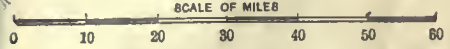


Principal Through Auto Routes —————
Other Auto Routes - - - - -



CALIFORNIA

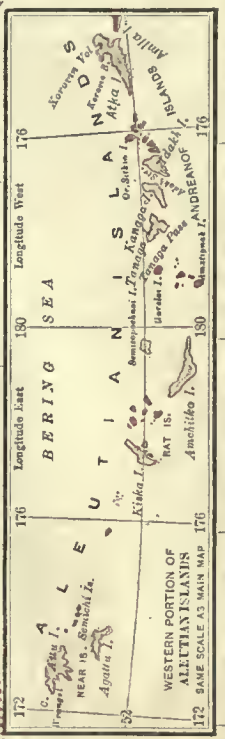
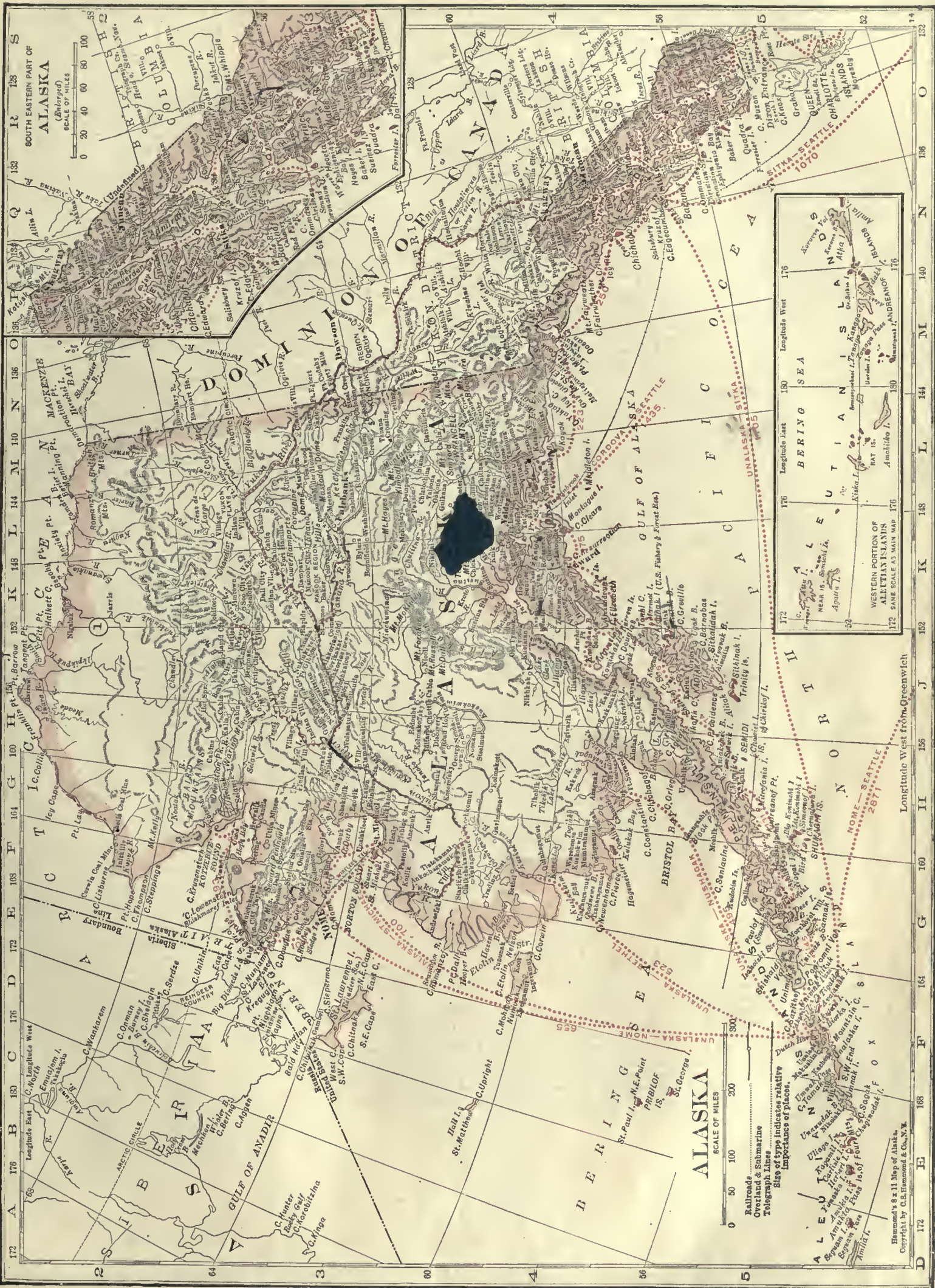
(Southern Part)



- State Capital ⊙
- County Seats ⊙
- National Parks ————
- National Forests ————
- Indian Reservations ————
- Size of type indicates relative importance of places.

Hammond's Complete Map of California (Southern Part)
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ALASKA



Bairds
Overland & Seamarine
Telegraph Lines
Size of type indicates relative importance of places.

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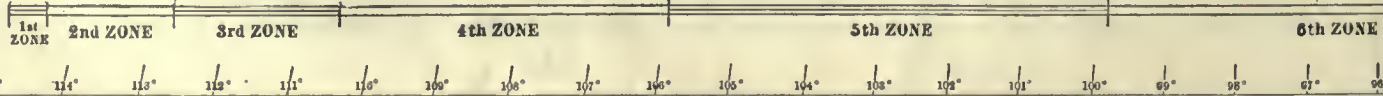


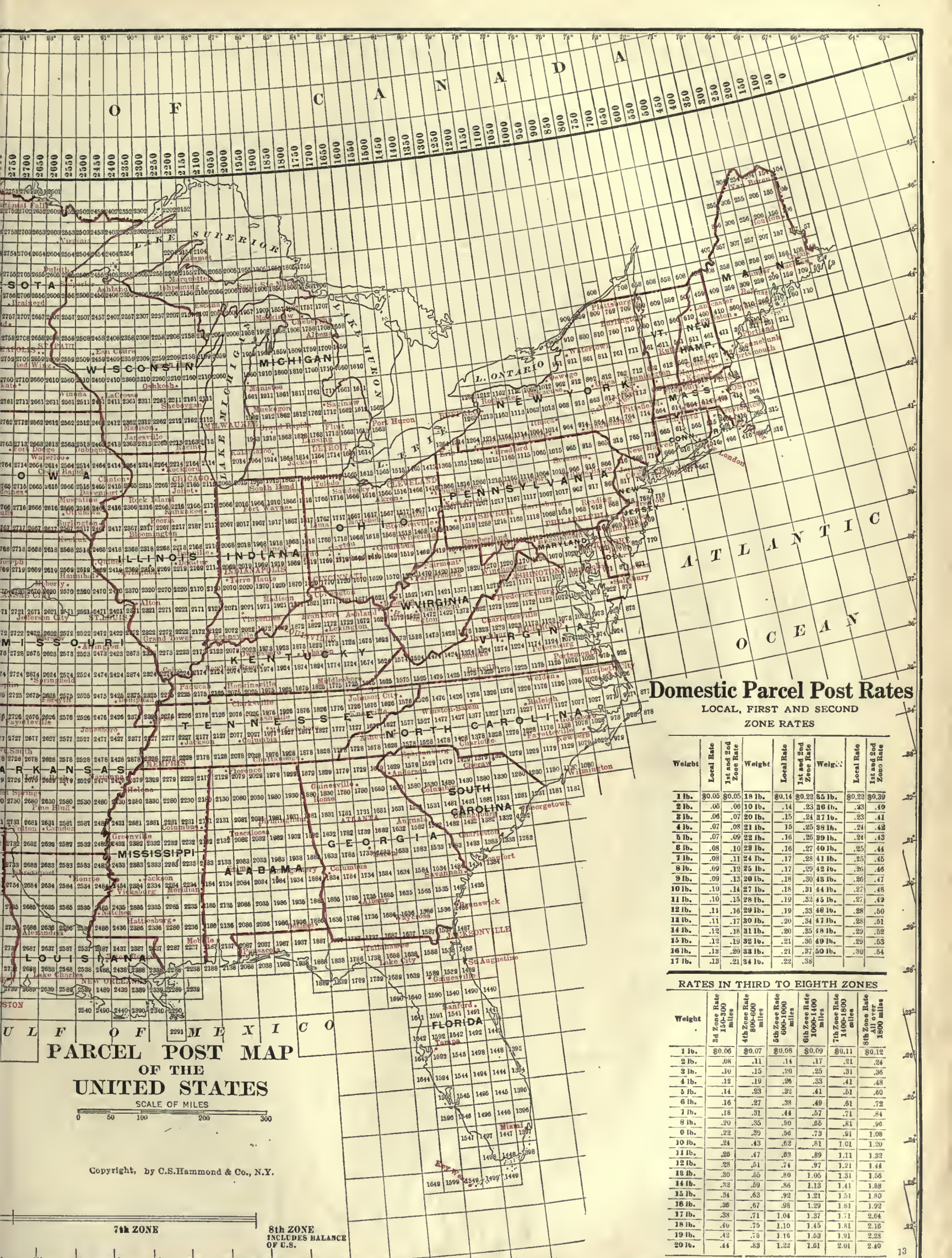
EXPLANATION

Numbered squares represent Units of area. The Unit of area in which each place is located, is shown in the accompanying Parcel Post Guide.

Using the Zone Scale below, measure from the center of the Unit in which the post-office of departure is located to the nearest boundary of the Unit in which post-office of delivery is located. With the distance in zones thus determined, the rate for any parcel of eleven pounds or less may be calculated from the table in the lower right-hand corner of this map. The Zone Scale may be reproduced on a separate slip of paper, or an ordinary foot rule, yardstick or a blank sheet of paper may be used and applied to the Zone Scale. For example, a foot measure applied to the map, shows distance from center of Unit 3158 (Aberdeen, S. D.) to Unit 3334 (Abilene, Tex.) is $5\frac{1}{4}$ inches; applying the foot rule to Zone Scale, we see that the rate between these Units is to be calculated on the Fifth Zone basis.

SCALE OF ZONES





Domestic Parcel Post Rates LOCAL, FIRST AND SECOND ZONE RATES

Weight	Local Rate 1st and 2nd Zone Rate	Weight	Local Rate 1st and 2nd Zone Rate	Weight	Local Rate 1st and 2nd Zone Rate
1 lb.	\$0.05	18 lb.	\$0.14	35 lb.	\$0.23
2 lb.	.06	19 lb.	.14	36 lb.	.23
3 lb.	.06	20 lb.	.15	37 lb.	.23
4 lb.	.07	21 lb.	.15	38 lb.	.24
5 lb.	.07	22 lb.	.16	39 lb.	.24
6 lb.	.08	23 lb.	.16	40 lb.	.25
7 lb.	.08	24 lb.	.17	41 lb.	.25
8 lb.	.09	25 lb.	.17	42 lb.	.26
9 lb.	.09	26 lb.	.18	43 lb.	.26
10 lb.	.10	27 lb.	.18	44 lb.	.27
11 lb.	.10	28 lb.	.19	45 lb.	.27
12 lb.	.11	29 lb.	.19	46 lb.	.28
13 lb.	.11	30 lb.	.20	47 lb.	.28
14 lb.	.12	31 lb.	.20	48 lb.	.29
15 lb.	.12	32 lb.	.21	49 lb.	.29
16 lb.	.13	33 lb.	.21	50 lb.	.30
17 lb.	.13	34 lb.	.22		

RATES IN THIRD TO EIGHTH ZONES

Weight	3d Zone Rate 1400-3000 miles	4th Zone Rate 3000-6000 miles	5th Zone Rate 6000-10000 miles	6th Zone Rate 10000-14000 miles	7th Zone Rate 14000-18000 miles	8th Zone Rate 18000+ miles
1 lb.	\$0.06	\$0.07	\$0.08	\$0.09	\$0.11	\$0.12
2 lb.	.08	.11	.14	.17	.21	.24
3 lb.	.10	.15	.20	.25	.31	.36
4 lb.	.12	.19	.26	.33	.41	.48
5 lb.	.14	.23	.32	.41	.51	.60
6 lb.	.16	.27	.38	.49	.61	.72
7 lb.	.18	.31	.44	.57	.71	.84
8 lb.	.20	.35	.50	.66	.81	.96
9 lb.	.22	.39	.56	.73	.91	1.08
10 lb.	.24	.43	.62	.81	1.01	1.20
11 lb.	.26	.47	.69	.89	1.11	1.32
12 lb.	.28	.51	.74	.97	1.21	1.44
13 lb.	.30	.55	.80	1.05	1.31	1.56
14 lb.	.32	.59	.86	1.13	1.41	1.68
15 lb.	.34	.63	.92	1.21	1.51	1.80
16 lb.	.36	.67	.98	1.29	1.61	1.92
17 lb.	.38	.71	1.04	1.37	1.71	2.04
18 lb.	.40	.75	1.10	1.45	1.81	2.16
19 lb.	.42	.78	1.16	1.53	1.91	2.28
20 lb.	.44	.82	1.22	1.61	2.01	2.40

PARCEL POST REGULATIONS

A general parcel post in the United States is provided for in section 8 of the act of August 24, 1912; some of the regulations have been amended from time to time by the Postmaster General.

SECTION 1. That hereafter fourth class mail matter shall embrace all other matter, including farm and factory products, not now embraced by law in either the first, second, or third class, not exceeding eleven pounds in weight, nor greater in size than seventy-two inches in length and girth combined, nor in form or kind likely to injure the person of any postal employee or damage the mail equipment or other mail matter and not of a character perishable within a period reasonably required for transportation and delivery.

SEC. 2. That for the purposes of this section the United States and its several Territories and possessions, excepting the Philippine Islands, shall be divided into units of area thirty minutes square, identical with a quarter of the area formed by the intersecting parallels of latitude and meridians of longitude, represented on appropriate postal maps or plans, and such units of area shall be the basis of eight postal zones, as follows:

(a) The first zone shall include all territory within such quadrangle, in conjunction with every contiguous quadrangle, representing an area having a mean radial distance of approximately fifty miles from the center of any given unit of area.

(b) The second zone shall include all units of area outside the first zone lying in whole or in part within a radius of approximately one hundred and fifty miles from the center of a given unit of area.

(c) The third zone shall include all units of area outside the second zone lying in whole or in part within a radius of approximately three hundred miles from the center of a given unit of area.

(d) The fourth zone shall include all units of area outside the third zone lying in whole or in part within a radius of approximately six hundred miles from the center of a given unit of area.

(e) The fifth zone shall include all units of area outside the fourth zone lying in whole or in part within a radius of approximately one thousand miles from the center of a given unit of area.

(f) The sixth zone shall include all units of area outside the fifth zone lying in whole or in part within a radius of approximately one thousand four hundred miles from the center of a given unit of area.

(g) The seventh zone shall include all units of area outside the sixth zone lying in whole or in part within a radius of approximately one thousand eight hundred miles from the center of a given unit of area.

(h) The eighth zone shall include all units of area outside the seventh zone.

SEC. 3. That the rate of postage on fourth class matter weighing not more than four ounces shall be one cent for each ounce or fraction of an ounce; and on such matter in excess of four ounces in weight the rate shall be by the pound, as hereinafter provided (see sec. 7), the postage in all cases to be prepaid by postage stamps affixed.

2. That except as provided in the next preceding paragraph postage on matter of the fourth class shall be prepaid at the following rates:

(a) On all matter mailed at the post office from which a rural route starts, for delivery on such route, or mailed at any point on such route for delivery at any other point thereon, or at the office from which the route starts, or on any rural route starting therefrom, and on all matter mailed at a city carrier office, or at any point within its delivery limits, for delivery by carriers from that office, or at any office for local delivery, five cents for the first pound or fraction of a pound and one cent for each additional two pounds or fraction thereof.

(b) For delivery within the first zone, except as provided in the next preceding paragraph, five cents for the first pound or fraction of a pound and one cent for each additional pound or fraction of a pound.

(c) For delivery within the second zone, five cents for the first pound or fraction of a pound and one cent for each additional pound or fraction of a pound.

(d) For delivery within the third zone, seven cents for the first pound or fraction of a pound and five cents for each additional pound or fraction of a pound.

(e) For delivery within the fourth zone, eight cents for the first pound or fraction of a pound and six cents for each additional pound or fraction of a pound.

(f) For delivery within the fifth zone, nine cents for the first pound or fraction of a pound and seven cents for each additional pound or fraction of a pound.

(g) For delivery within the sixth zone, ten cents for the first pound or fraction of a pound and nine cents for each additional pound or fraction of a pound.

(h) For delivery within the seventh zone, eleven cents for the first pound or fraction of a pound and ten cents for each additional pound or fraction of a pound.

(i) For delivery within the eighth zone and between the Philippine Islands and any portion of the United States, including the District of Columbia and the several Territories and possessions, twelve cents for the first pound or fraction of a pound and twelve cents for each additional pound or fraction of a pound.

SEC. 5. The Postmaster General shall make provision by regulation for the indemnification of shippers, for shipment injured or lost, by insurance or otherwise, and, when desired, for the collection on delivery of the postage and price of the article shipped, fixing such charges as may be necessary to pay the cost of such additional services.

SEC. 6. That this act shall not in any way affect the postage rate on seeds, cuttings, bulbs, roots, scions, and plants as fixed by section 482 of the Postal Laws and Regulations (edition of 1902). (See sec. 7, par. 4.)

RATES OF POSTAGE

SEC. 7. Parcels weighing four ounces or less are mailable at the rate of one cent for each ounce or fraction of an ounce, regardless of distance. Parcels weighing more than four ounces are mailable at the pound rates shown in the table, above a fraction of a pound being considered a full pound.

2. The parcel post rate between any point in the United States and any point in the Hawaiian Islands, the United States Postal Agency at Shanghai, and any point in Alaska, and between any two points in Alaska, except for parcels weighing four ounces or less, on which the rate is one cent for each ounce or fraction thereof, shall be twelve cents for the first pound and twelve cents for each additional pound or fraction thereof. These rates also apply to parcels mailed in the United States for delivery in the Canal Zone, and to parcels between the Philippine Islands and any portion of the United States, including the District of Columbia and the several Territories and possessions. (See sec. 3, par. 2 (i).)

3. The eighth zone rate of postage, except on parcels weighing four ounces or less, on which the rate shall be as prescribed in section 3, shall apply to all parcels of fourth class matter mailed in the United States for delivery in Canada, Mexico, Cuba, and the Republic of Panama: *Provided* (a) That as prescribed by existing special postal conventions with these countries such parcels shall not exceed two kilograms (4 lbs., 6 ozs.) in weight, and (b) that nothing in this section shall affect the dispatch of parcel post packages to Mexico and the Republic of Panama up to eleven pounds (5 kilograms) in weight under the existing parcel post conventions with these countries.

3½. The eighth zone rate of postage shall apply to parcels of fourth-class mail, exceeding four ounces in weight, exchanged between the United States, or any of its possessions, and United States naval vessels stationed in foreign waters. When such vessels are stationed in a port of the United States, or any of its possessions, the rates applicable to or from the post-office at such port shall be charged.

4. Seeds, cuttings, bulbs, roots, scions, and plants are matter of the fourth class, notwithstanding that a special rate of postage (one cent for each two ounces or fraction thereof regardless of distance) applies thereto. The limit of weight is increased to eleven pounds by the parcel post law (see sec. 1), but no other change is made.

5. Cut flowers, dried plants, and botanical specimens not susceptible of propagation are transmissible at parcel post rates.

6. Samples of wheat or other grain in its natural condition, potatoes, beans, peas, chestnuts, acorns, etc., when intended for planting must be prepaid at the special rate of postage prescribed in paragraph 4, but when intended to be used as food the parcel post rates apply.

SEC. 9. When parcels are presented for mailing, the senders shall be required to affix stamps before the matter is accepted. When a parcel is insufficiently prepaid, and the sender can not be located, the matter shall be treated as unpaid or insufficiently prepaid, marked "Held for postage" and the addressee notified immediately on Form 1543 (except as provided in sec. 38). Such matter shall be held not longer than two weeks, unless the office of address is so remote that the postage could not be received from the addressee within that time. If the required postage is received, stamps of the value hereof shall be affixed to the matter in such manner as to cover a part of the words "Held for postage" and the parcel dispatched.

2. When the sender of any insufficiently prepaid matter pays the postage, after dispatch of notice to the addressee, such matter shall be indorsed "Postage subsequently paid by sender," the stamps affixed, and the matter dispatched.

3. When the required postage is not received from the addressee within the time specified, the matter shall be marked "Unclaimed" and sent to the Division of Dead Letters.

SEC. 10. Parcels weighing more than four ounces must be mailed at a post office, branch post office, named or lettered station, or such numbered stations as may be designated by the postmaster, or delivered to a rural or other carrier duly authorized to receive such matter. Parcels weighing four ounces or less may be mailed in the same manner as matter of other classes.

2. Parcels collected on star routes must be deposited in the next post office at which the carrier arrives and postage charged at the rate from that office.

PREPARATION FOR MAILING

SEC. 11. Parcels must be prepared for mailing in such manner

weighing more than 8 ounces the pound rates shown in the table appearing in map on page 133 shall apply.

The rate of postage on gold coin, gold bullion, and gold dust offered for mailing between any two points in Alaska, or between any point in Alaska and any point in the United States or its possessions, shall be 2 cents an ounce or fraction thereof, regardless of distance. Such gold coin, gold bullion, or gold dust shall be enclosed in sealed packages not exceeding 11 pounds in weight and sent by registered mail. (Effective January 1, 1914.)

Section 7 is amended to read as follows, effective January 1, 1914:

Parcels weighing four ounces or less are mailable at the rate of one cent for each ounce or fraction of an ounce, regardless of distance. Parcels weighing more than four ounces are mailable at the pound rates shown in the following table, a fraction of a pound being considered a full pound:

that the contents can be easily examined. (See secs. 19 to 37, inclusive.)

2. A parcel must not be accepted for mailing unless it bears the name and address of the sender preceded by the word "From."

3. In addition to the name and address of the sender, which is required, it is permissible to write or print on the covering of a parcel, or on a tag or label attached to it, the occupation of the sender, and to indicate in a small space by means of marks, letters, numbers, names or other brief description, the character of the parcel, but ample space must be left on the address side for the full address in legible characters and for the necessary postage stamps. Inscriptions such as "Merry Christmas," "Please do not open until Christmas," "Happy New Year," "With best wishes," and the like, may be placed on the covering of the parcel in such manner as not to interfere with the address.

SEC. 12. Postmasters must examine parcels when presented for mailing to ascertain that the postage is fully prepaid.

2. When any parcel offered for mailing is sealed or otherwise closed against inspection, or contains or bears writing not permissible, it is subject to postage at the first class rate and shall be treated as first class matter (except as provided in secs. 26 and 32). If such a parcel exceeds four pounds in weight it is unmailable.

3. A parcel containing two or more classes of mail matter is chargeable with postage at the rate applicable to the highest class of matter enclosed. A parcel composed of two articles, one being matter of the third class and the other matter of the fourth class, is chargeable with postage at the fourth class rate when such postage is equal to or greater than that which would be chargeable if the third class rate were applicable. However, when the postage on a parcel containing both third and fourth class matter amounts to more at the third class than at the fourth class rate, owing to the graduated zone rates, the parcel must be charged with postage at the third class rate (one cent for each two ounces or fraction of two ounces), and in such case the parcel must not exceed four pounds in weight, unless it is a single book.

LIMIT OF WEIGHT AND SIZE

SEC. 15. Parcels mailed for delivery within the first and second zones must not exceed fifty pounds in weight and parcels mailed beyond the limits of the second zone must not exceed twenty pounds in weight.

2. The law prescribes that a package to be admitted to the parcel post shall not exceed eighty-four inches in combined length and girth. In measuring the length the greatest distance in a straight line between the two ends of the parcel shall be taken, while the girth is the actual measurement by a tape encircling the parcel at its thickest part. The parcel shall be refused for mailing, if even slightly in excess in size or weight.

PACKING OF PARCELS

SEC. 19. Medicines composed wholly or in part of poison or poisons, and anesthetic agents which are not outwardly or of their own force dangerous or injurious to life, health, or property, and not in themselves unmailable (see sec. 16), when packed as prescribed in sections 21, 22, and 23, and the package bears the name and address of the manufacturer or dealer in the article mailed, may be transmitted in the domestic mails from the manufacturer thereof or dealer therein to licensed physicians, surgeons, pharmacists, and dentists.

SEC. 20. Admissible articles which, from their form or nature, might damage other mail matter or equipment, or injure the person of any postal employee, may be mailed when packed in accordance with the following conditions:

2. When not liquid or liquefiable, they must be placed in a bag, box, or removable envelope, or wrapping, made of paper, cloth, parchment, or similar material, and enclosed in a box or tube of metal or wood, with a sliding, clasp, or screw lid.

3. In case of such articles liable to break, the inner bag, box, envelope, or wrapping must be surrounded by sawdust, excelsior, cotton, or other similar substance.

SEC. 21. Admissible liquids and oils, in packages not exceeding eleven pounds in weight, will be accepted for mailing when intended for delivery at the office of mailing or on a rural route starting therefrom, when enclosed in a glass or metal container, securely closed and heavily wrapped, provided it is not necessary to transport them over steam or electric railways.

SEC. 22. Admissible liquids and oils, pastes, salves, or other articles easily liquefiable, will be accepted for mailing regardless of distance when they conform to the following conditions:

2. When in strong glass bottles holding four ounces or less, the total quantity sent in one parcel shall not exceed twenty-four ounces, liquid measure. Each bottle shall be wrapped in paper or other absorbent substance and placed in a box made of cardboard or other suitable material and then placed in a box and packed in a container made of double-faced corrugated pasteboard of good quality. The corners of the container must fit tightly and be reinforced with tape so as to prevent the escape of any liquid if the contents should be broken, and the whole parcel shall be securely wrapped with strong paper and tied with twine. Single bottles of liquid holding four ounces or less may also be packed as prescribed in the following paragraph:

3. When in glass bottles holding more than four ounces, the total quantity sent in one parcel shall not exceed sixteen ounces, liquid measure. The bottle must be very strong and must be enclosed in a block or tube of metal, wood, papier-mache, or similar material; and there must be provided between the bottle and the block or tube a cushion of cotton, felt or other absorbent. The block or tube must be at least five thirty-seconds of an inch thick in its thinnest part for bottles holding eight ounces or less and at least three-sixteenths of an inch thick for bottles holding more than eight ounces. The block or tube must be rendered water-tight by an application on the inside of paraffine or other suitable substance and must be closed by a screw-top cover with sufficient screw threads to require at least one and one-half complete turns before it will come off. The cover must be provided with a washer so that no liquid will escape if the bottle should be broken.

4. When in a metal container, the weight of the parcel must not exceed eleven pounds. The container must be hermetically sealed, enclosed in a strong box and securely wrapped.

5. All packages containing liquid must be marked "FRAGILE."

SEC. 23. Pastes, salves, etc., not easily liquefiable, will be accepted for mailing when enclosed in water-tight metal containers and placed in a strong pasteboard or wooden box and securely wrapped.

IMPORTANT AMENDMENTS TO PARCEL POST REGULATIONS

Subparagraphs (d), (e), (f) and (g), Section 3, are amended to read as follows, effective January 1, 1914:

(d) For delivery within the third zone, (six) cents for the first pound or fraction of a pound and (two) cents for each additional pound or fraction of a pound.

(e) For delivery within the fourth zone, (seven) cents for the first pound or fraction of a pound and (four) cents for each additional pound or fraction of a pound.

(f) For delivery within the fifth zone, (eight) cents for the first pound or fraction of a pound and (six) cents for each additional pound or fraction of a pound.

(g) For delivery within the sixth zone, (nine) cents for the first pound or fraction of a pound and (eight) cents for each additional pound or fraction of a pound.

On and after March 16, 1914, the rate of postage on parcels of books weighing 8 ounces or less shall be 1 cent for each 2 ounces or fraction thereof, and on those

PARCEL POST GUIDE

SEC. 24. Manufacturers or dealers intending to transmit articles in considerable quantities should submit to the postmaster at the mailing office for approval a specimen parcel, showing the manner of packing.

SEC. 25. When sharp pointed instruments are offered for mailing, the points must be capped or encased, so that they can not cut through their covering. Blades must be bound so that they will remain firmly attached to each other or within their handles or sockets.

SEC. 26. Seeds and other admissible articles, which are liable from their form or nature to loss or damage unless specially protected, may be put up in sealed envelopes of material sufficiently transparent to show the contents clearly without opening.

SEC. 27. Ink powders, pepper, snuff, or other similar powders, not explosive, or any similar pulverized dry substance, not poisonous, may be sent in the mails when inclosed in the manner prescribed herein for liquids (see sec. 22), or when inclosed in cases made of metal, wood, paper, mack, or similar material, in such manner as to render impossible the escape of any of the contents.

SEC. 28. Flour of all kinds must be put up in such manner as to prevent the package breaking or cracking or the flour being scattered in the mails.

SEC. 29. Queen bees, live insects, and dried reptiles may be mailed in accordance with the instructions of the Department of Agriculture as promulgated by the Post Office Department under order number 6242, of May 4, 1912.

SEC. 30. Seeds of fruit, nursery stock, and all other plant products for propagation, may be mailed in accordance with the instructions of the Department of Agriculture as promulgated by Post Office Department orders, number 6313, of May 29 1912; number 6655, of November 16, 1912; and number 6674 of November 27, 1912.

SEC. 31. Candies, confectionery, yeast cakes, soap in hard cakes, etc., must be inclosed in boxes and so wrapped as to prevent injury to other mail matter.

SEC. 32. Sealed original packages of proprietary articles, such as soaps, tobacco, pills, tablets, etc., put up in fixed quantities by the manufacturer, and not in themselves unmailable, will be accepted for mailing when properly wrapped.

SEC. 33. Fragile articles, such as millinery, toys, musical instruments, etc., and articles consisting wholly or in part of glass, or contained in glass, must be securely packed and the parcel stamped or labeled "FRAGILE." Parcels so labeled must be handled with the greatest possible care.

SEC. 34. Parcels containing perishable articles must be marked "PERISHABLE." Articles likely to spoil within the time reasonably required for transportation and delivery must not be accepted for mailing. (See sec. 1.)

2. Butter, lard, and perishable articles such as fish, fresh meats, dressed fowls, vegetables, fruits, berries, and articles of a similar nature which decay quickly, when so packed or wrapped as to prevent damage to other mail matter, will be accepted for local delivery (see sec. 3, par. 2a), either at the office of mailing or on any rural route starting therefrom. When inclosed in an inner cover and a strong outer cover of wood, metal, heavy corrugated pasteboard, or other suitable material, and wrapped so that nothing can escape from the package, they will be accepted for mailing to all offices within the first and second zone.

3. Butter, lard, or any admissible greasy or oily substance, when intended for delivery at offices beyond the first zone must be packed in accordance with section 22.

4. Vegetables and fruits which do not decay quickly will be accepted for mailing to any zone if packed so as to prevent damage to other mail matter.

5. Eggs will be accepted for local delivery (see sec. 3, par. 2a) when so packed in a basket or other container as to prevent damage to other mail matter.

6. Eggs will be accepted for mailing regardless of distance when each egg is wrapped separately and surrounded with

excelsior, cotton, or other suitable material, and packed in a container made of double corrugated pasteboard, metal, wood, or other suitable material in such manner as to place each egg on its end and to prevent them from striking together or against the side or top of the container, with an outer cover of double corrugated pasteboard, metal, wood, or other suitable material, and wrapped so that nothing can escape from the package. All such parcels must be labeled "EGGS."

SEC. 35. Salted, dried, smoked, or cured meats and other meat products may be admitted to the mails and may be transported, regardless of distance, from one State or Territory or the District of Columbia to another State or Territory or the District of Columbia when the provisions of the act of June 30, 1906, and the regulations promulgated thereunder by the Department of Agriculture, have been complied with; provided, however, that fresh meat in any form may be transported only within the first and second zone. (See sec. 34.)

SEC. 36. Specimens of dried blood or of diseased tissues or communicable diseases, cultures and tubercular sputum may be mailed in accordance with instructions of the Treasury Department (Bureau of Public Health and Marine-Hospital Service), as promulgated by the Post Office Department under Order No. 3064, of April 22, 1910.

SEC. 37. Postmasters must refuse to receive for mailing parcels not properly inclosed, or packed for safe shipment.

FORWARDING OF PARCELS

SEC. 46. Parcels may be remailed or forwarded on the payment of additional postage at the rate which would be chargeable if they were originally mailed at the forwarding office, in which case the necessary stamps shall be affixed by the forwarding postmaster. Payment must be made every time the parcel is forwarded.

INSURANCE ON PARCELS

SEC. 62. A mailable parcel on which the postage is fully prepaid may be insured against loss in an amount equivalent to its actual value, but not to exceed \$25, on payment of a fee of five cents and in amount equivalent to its actual value in excess of \$25, but not to exceed \$50, on payment of a fee of ten cents in stamps, such stamps to be affixed. The amount of the insurance fee shall be placed on the receipt given the sender and on the coupon retained at the mailing office.

2. When a parcel is insured, the sender will be given a receipt showing the office and date of mailing and number of the parcel. The parcel should be numbered to correspond with the receipt, stamped "INSURED," and an insurance tag securely attached. It will then be treated as ordinary mail until it reaches the office of address, when it must be delivered to the addressee or, unless otherwise directed by the addressee, to the person, firm or corporation in whose care it is addressed, or to any responsible person to whom the addressee's ordinary mail is customarily delivered, and a receipt obtained therefor on the tag attached to the parcel. When an insured parcel is received without the insurance tag attached, the prescribed receipt should be obtained from the addressee on delivery.

2½. No article of any class bearing the word "Insured" on the outside envelope or wrapper, or on a tag or label attached thereto, shall be accepted for mailing, except insured parcel post mail.

3. A receipt signed by a person other than the addressee must show the name of the addressee as well as that of the person signing it. A signature made by mark (X) must be attested by a reputable witness.

4. When a return receipt is desired by the sender of an insured parcel the postmaster at the mailing office shall stamp or write across the margin of the insurance tag the words "Return Receipt Desired," and the postmaster at the office of address shall obtain from the addressee a receipt and mail it to the sender.

REGISTRATION

SEC. 63. In view of the provision for the insurance of fourth

class mail and the furnishing of receipts for such mail when insured, the necessity for registration is removed and therefore fourth class matter shall not be admitted to the registered mail.

SEC. 65. A mailable parcel will be accorded the usual special delivery service when a special delivery stamp or ten cents in ordinary stamps are affixed thereto in addition to the parcel post postage. When ordinary stamps are used the words "Special Delivery" must be placed on the wrapper.

C. O. D. PACKAGES

SEC. 66. The sender of a mailable parcel on which the postage is fully prepaid may have the price of the article and the charges thereon collected from the addressee on payment of a fee of ten cents in stamps affixed, provided the amount to be collected does not exceed \$100. Such a parcel will be insured against loss, without additional charge, in an amount equivalent to its actual value, but not to exceed \$50.

2. The sender of a collect on delivery (C. O. D.) parcel will be given a receipt showing the office and date of mailing, the number of the parcel, and the amount due him.

3. A C. O. D. parcel will be accepted for mailing only at a money-order office and when addressed to a money-order office. Money-order offices are designated in the parcel post guide by an asterisk (*) or a dagger (†). The postmaster at the mailing office will be held responsible for the postage required for the return of a parcel addressed to a non-money-order office.

5. The C. O. D. tag must show the amount due the sender, the money-order fee necessary to make the remittance, and the total amount to be collected. It should be securely attached to the parcel, which should be numbered to correspond with the tag, stamped C. O. D., and the charges to be collected plainly written thereon. The parcel will be treated as ordinary mail until it reaches the office of address, where, on payment of all charges, it will be delivered to the addressee or, unless otherwise directed by the addressee, to the person, firm or corporation in whose care it is addressed, or to any responsible person to whom the addressee's ordinary mail is customarily delivered. A receipt for the parcel must be obtained on the tag attached thereto.

6. A receipt signed by a person other than the addressee must show the name of the addressee as well as that of the person signing it. A signature made by mark (X) must be attested by a reputable witness.

7. When a C. O. D. parcel is received without the tag attached, the charges shown on the parcel must be collected and the prescribed receipt obtained from the addressee.

8. An employee must receipt for the total number of parcels given him for delivery. This receipt will be surrendered to him either on the return of the parcels or the receipted tags and the total amount to be collected.

9. The receipted tag will be considered as the addressee's application for a money-order for the amount due the sender. A money-order will then be issued, stamped C. O. D., and mailed to the sender in a penalty envelope by the postmaster, who will enter on the tag the number of the money-order, the amount and date of issue, and file it with other money-order applications. No return receipt will be furnished the sender, as the money-order serves that purpose.

10. The addressee will not be permitted to examine the contents of a C. O. D. parcel until it had been receipted for and all charges paid. A parcel may be refused when it is tendered for delivery, but after delivery has been effected it cannot be returned on account of dissatisfaction with the contents or the amount collected.

11. A parcel may be forwarded, in accordance with Section 46, without the payment of an additional C. O. D. fee. When so forwarded a duplicate receipt tag should be filed showing the office to which it is forwarded.

12. The records of C. O. D. parcels must be preserved at the mailing office for one year and at the delivery office for three years.

PARCEL POST GUIDE OF THE UNITED STATES

Giving the Unit numbers of Principal Cities, including all places having 16,000 or more inhabitants

To find on the map the location of any place named in this guide, or the Unit in which such place is situated, run your eye along heavy-face numerals on the Canadian border until you come to the heavy-face numeral nearest to the desired Unit. Duluth, Minn., shown as in Unit 2555, may be quickly located by following the heavy-face numerals to 2550 and proceeding down this column to 2555.

UNIT	UNIT	UNIT	UNIT	UNIT	UNIT	UNIT	UNIT
Aberdeen, Wash. 5705	Central Falls, R. I. 465	Fall River, Mass. 465	Lafayette, Ind. 2018	New Albany, Ind. 1922	Pittsburgh, Pa. 1368	South Bethlehem, Pa. 867	
Akron, Ohio. 1516	Charleston, S. C. 1333	Fargo, N. Dak. 3005	Lakewood, Ohio. 1515	Newark, N. J. 767	Pittsfield, Mass. 664	South Omaha, Nebr. 2916	
Alameda, Cal. 5573	Charleston, W. Va. 1522	Fitchburg, Mass. 513	Lancaster, Pa. 968	Newark, Ohio. 1568	Pittston, Pa. 916	Spokane, S. C. 1529	
Albany, N. Y. 713	Charlotte, N. C. 1428	Fond du Lac, Wis. 2161	Laosung, Mich. 1813	New Bedford, Mass. 415	Plainfield, N. J. 767	Spokane, Wash. 5053	
Allentown, Pa. 867	Chattanooga, Tenn. 1878	Fort Dodge, Iowa. 2763	Lawrence, Mass. 463	New Britain, Conn. 615	Plymouth, Pa. 916	Springfield, Ill. 2319	
Alliance, Ohio. 1467	Chelsea, Mass. 464	Fort Smith, Ark. 2778	Leavenworth, Kan. 2820	New Brunswick, N. J. 768	Pontiac, Mich. 1663	Springfield, Mass. 614	
Alton, Ill. 2371	Chester, Pa. 869	Fort Wayne, Ind. 1866	Lebanon, Pa. 968	Newburgh, N. Y. 766	Port Huron, Mich. 1563	Springfield, Mo. 2674	
Altus, Okla. 3279	Chicago, Ill. 2115	Fort Worth, Tex. 3083	Leominster, Mass. 513	Newcastle, Pa. 1367	Portland, Me. 361	Springfield, Ohio. 1719	
Amsterdam, N. Y. 763	Chicago Heights, Ill. 2116	Freeport, Ill. 2314	Lewiston, Me. 360	New Haven, Conn. 616	Portland, Ore. 5607	Stamford, Conn. 716	
Anderson, Ind. 1918	Chicopee, Mass. 614	Fresno, Cal. 5325	Lexington, Ky. 1772	New London, Conn. 566	Portsmouth, Ohio. 1261	Steubenville, Ohio. 1418	
Ansonia, Conn. 666	Cincinnati, Ohio. 1820	Galesburg, Ills. 2367	Lima, Ohio. 1767	New Orleans, La. 2389	Portsmouth, Va. 975	Stockton, Cal. 5173	
Appleton, Wis. 2160	Cleveland, Ohio. 1515	Galveston, Tex. 2840	Lincoln, Neb. 3017	Newport, Ky. 1770	Pottstown, Pa. 918	Superior, Wis. 2555	
Asheville, N. C. 1627	Clinton, Iowa. 2365	Gardner, Mass. 513	Little Rock, Ark. 2579	Newport, R. I. 466	Pottsville, Pa. 967	Syracuse, N. Y. 962	
Ashtabula, Ohio. 1415	Coboes, N. Y. 713	Glen Falls, N. Y. 712	Lockport, N. Y. 1212	Newport News, Va. 1374	Poughkeepsie, N. Y. 715	Tacoma, Wash. 5554	
Atchison, Kan. 2869	Colorado Springs, Colo. 3821	Gloucester, Mass. 413	Logansport, Ind. 1967	New Rochelle, N. Y. 717	Providence, R. I. 465	Tampa, Fla. 1593	
Athens, Ga. 1681	Columbia, S. C. 1481	Gloversville, N. Y. 762	Long Beach, Cal. 5181	Newton, Mass. 464	Pueblo, Colo. 3822	Taunton, Mass. 465	
Atlanta, Ga. 1781	Columbus, Ga. 1834	Green Bay, Wis. 2159	Lorain, Ohio. 1566	New York, N. Y. 767	Quincy, Ill. 2469	Terra Haute, Ind. 2070	
Atlantic City, N. J. 770	Columbus, Ohio. 1619	Greensboro, N. C. 1326	Los Angeles, Cal. 5180	Niagara Falls, N. Y. 1262	Quincy, Mass. 464	Toledo, Ohio. 1715	
Attleboro, Mass. 465	Concord, N. H. 512	Greenville, S. C. 1579	Louisville, Ky. 1922	Norfolk, Va. 975	Racine, Wis. 2113	Topeka, Kan. 2920	
Auburn, N. Y. 1013	Council Bluffs, Iowa. 2916	Hackensack, N. J. 767	Lowell, Mass. 463	Norristown, Pa. 868	Raleigh, N. C. 1227	Torrington, Conn. 665	
Augusta, Ga. 1532	Covington, Ky. 1820	Hagerstown, Md. 1119	Lynchburg, Va. 1274	North Adams, Mass. 663	Reading, Pa. 918	Trenton, N. J. 818	
Aurora, Ill. 2165	Cumberland, Md. 1219	Hamilton, Ohio. 1820	Lynn, Mass. 414	Northampton, Mass. 614	Revere, Mass. 464	Troy, N. Y. 713	
Austin, Tex. 3138	Dallas, Tex. 3033	Hammond, Ind. 2115	McAlester, Okla. 2929	No. Yakima, Wash. 5355	Richmond, Ind. 1819	Union, N. J. 2976	
Baltimore, Md. 1020	Danbury, Conn. 666	Hannibal, Mo. 2469	McKeesport, Pa. 1318	Norwalk, Conn. 666	Richmond, Va. 1073	Uniontown, Pa. 1319	
Bangor, Me. 209	Danville, Ill. 2118	Harrisburg, Pa. 1018	McKees Rock, Pa. 1368	Norwich, Conn. 565	Roanoke, Va. 1324	Utica, N. Y. 862	
Baton Rouge, La. 2488	Danville, Va. 1275	Harrison, N. J. 767	Macon, Ga. 1733	Norwood, Ohio. 1820	Rochester, N. Y. 1112	Vicksburg, Miss. 2434	
Battle Creek, Mich. 1864	Davenport, Iowa. 2415	Hartford, Conn. 615	Madison, Wis. 2262	Oakland, Cal. 5573	Rockford, Ill. 2264	Vincennes, Ind. 2021	
Bay City, Mich. 1711	Dayton, Ohio. 1769	Haverhill, Mass. 463	Mahonoy, Pa. 967	Oak Park, Ill. 2115	Rock Island, Ills. 2415	Waco, Tex. 3085	
Bayonne, N. J. 767	Decatur, Ill. 2219	Hazelton, Pa. 917	Mahonoy, Pa. 967	Ogden, Utah. 4516	Rome, N. Y. 862	Walla Walla, Wash. 5156	
Beaumont, Tex. 2788	Des Moines, Iowa. 2715	Hoboken, N. J. 767	Manchester, N. H. 463	Ogdensburg, N. Y. 859	Sacramento, Cal. 5471	Waltham, Mass. 464	
Bellefonte, Pa. 2321	Denver, Colo. 3819	Holyoke, Mass. 614	Mansfield, Ohio. 1617	Oil City, Pa. 1316	Saginaw, Mich. 1712	Washington, D. C. 1071	
Bellingham, Wash. 5551	Dubuque, Iowa. 2413	Homestead, Pa. 1318	Marion, Ind. 1917	Oklahoma, Okla. 3128	St. Joseph, Mo. 2819	Washington, Pa. 1368	
Beloit, Wis. 2263	Duluth, Minn. 2555	Huntington, W. Va. 1572	Marion, Ohio. 1667	Olean, N. Y. 1164	St. Louis, Mo. 2371	Waterbury, Conn. 665	
Berkeley, Cal. 5573	Dunkirk, N. Y. 1264	Hutchinson, Kan. 3122	Medford, Mass. 464	Omaha, Neb. 2916	St. Paul, Minn. 2659	Waterloo, Iowa. 2564	
Beverly, Mass. 413	Dunmore, Pa. 916	Indianapolis, Ind. 1969	Melrose, Mass. 464	Orange, N. J. 767	Salem, Mass. 413	Watertown, N. Y. 911	
Bideford, Me. 362	Duquesne, Pa. 1318	Ithaca, N. Y. 1014	Memphis, Tenn. 2378	Oshkosh, Wis. 2210	Salem, Ore. 5659	Waukegan, Ills. 2114	
Binghamton, N. Y. 914	Durham, N. C. 1226	Jackson, Mich. 1764	Meriden, Conn. 615	Oswego, N. Y. 1012	Salt Lake City, Utah. 4517	Wausau, Wis. 2309	
Birmingham, Ala. 2031	East Chicago, Ind. 2065	Jackson, Miss. 2384	Meridian, Miss. 2234	Ottumwa, Iowa. 2566	San Antonio, Tex. 3190	Waycross, Ga. 1586	
Bloomfield, N. J. 767	East Liverpool, Ohio. 1417	Jackson, Tenn. 2227	Michigan, City, Ind. 2015	Owensboro, Ky. 2073	San Diego, Cal. 5083	Westfield, Mass. 614	
Bloomington, Ill. 2218	Easton, Pa. 867	Jacksonville, Fla. 1538	Milwaukee, Wis. 2112	Paducah, Ky. 2224	Sandusky, Ohio. 1616	West Hoboken, N. J. 767	
Boise, Idaho. 4961	East Orange, N. J. 767	Jeramestown, N. Y. 1264	Minneapolis, Minn. 2659	Painesville, Ohio. 1465	San Francisco, Cal. 5573	Wheeling, W. Va. 1418	
Boston, Mass. 464	East Providence, R. I. 465	Jersey City, N. J. 767	Missoula, Mont. 4705	Parkersburg, W. Va. 1520	San Jose, Cal. 5524	White Plains, N. Y. 716	
Bradford, Pa. 1318	East Saint Louis, Ills. 2371	Johnstown, Pa. 1218	Mobile, Ala. 2187	Pasadena, Cal. 5180	Savannah, Ga. 1484	Wichita, Kan. 3073	
Bridgeport, Conn. 666	Eau Claire, Wis. 2459	Joliet, Ill. 2165	Moline, Ills. 2415	Passaic, N. J. 767	Schenectady, N. Y. 713	Wilkes Barre, Pa. 916	
Brockton, Mass. 464	Elgin, Ills. 2164	Joplin, Mo. 2824	Monessen, Pa. 1318	Pateron, N. J. 767	Scranton, Pa. 916	Williamsburg, Pa. 1368	
Brookline, Mass. 464	Elizabeth, N. J. 767	Kalamazoo, Mich. 1914	Montclair, N. J. 767	Pawtucket, R. I. 463	Seattle, Wash. 5553	Williamsport, Pa. 1066	
Buffalo, N. Y. 1213	Elkhart, Ind. 1915	Kansas City, Kan. 2820	Montgomery, Ala. 1984	Peabody, Mass. 413	Sedalia, Mo. 2671	Wilmington, Del. 919	
Burlington, Iowa. 2467	Elmira, N. Y. 1014	Kansas City, Mo. 2820	Mt. Carmel, Pa. 967	Peekskill, N. Y. 716	Shamokin, Pa. 1017	Wilmington, N. C. 1130	
Burlington, Vt. 660	El Paso, Texas. 3985	Kenosha, Wis. 2113	Mt. Vernon, N. Y. 717	Pensacola, Fla. 2088	Sharon, Pa. 1416	Winona, Minn. 2510	
Butler, Pa. 1317	Elyria, Ohio. 1566	Key West, Fla. 1549	Muscogee, Okla. 2877	Perth, Ill. 2317	Shawnee, Okla. 3028	Winston Salem, N. C. 1376	
Butte, Mont. 4606	Enid, Okla. 3126	Kingston, N. Y. 715	Muskegon, Mich. 1962	Perth Amboy, N. J. 767	Shreveport, Wis. 2111	Woonsocket, R. I. 514	
Cambridge, Mass. 464	Erie, Pa. 1364	Kingston, N. Y. 715	Muskogee, Okla. 2877	Petersburg, Va. 1074	Shenandoah, Pa. 967	Worcester, Mass. 514	
Camden, N. J. 869	Evansville, Ind. 2123	Knoxville, Tenn. 1727	Natick, Pa. 966	Petaluma, Cal. 869	Shreveport, La. 2734	Yonkers, N. Y. 717	
Camton, Ohio. 1467	Everett, Mass. 464	Kokomo, Ind. 1968	Nashua, N. H. 463	Phoenix, Ariz. 4582	Sioux City, Iowa. 2964	York, Pa. 1019	
Carbondale, Pa. 915	Everett, Wash. 5553	Lackawanna, N. Y. 1213	Nashville, Tenn. 2026	Pinebluff, Ark. 2580	Somerville, Mass. 464	Youngstown, Ohio. 1416	
Cedar Rapids, Iowa. 2515		La Crosse, Wis. 2461		Pittsburg, Kan. 2824	South Bend, Ind. 1965	Zanesville, Ohio. 1469	

TRANSCONTINENTAL AUTOMOBILE TOURS

From material kindly furnished by the American Automobile Association.

Several distinct and predominant routes are being developed across the continent; gradually each is becoming standard; and has its special advantages, depending principally on the nature of the country and the time of the year. These routes may be summarized briefly as follows:

(1) **Lincoln Highway**, starting at New York City, crosses New Jersey, Pennsylvania, Ohio, Indiana, Illinois, Iowa, Nebraska, with a loop into and out of Denver, Wyoming, Utah, Nevada, and California to San Francisco. It follows considerable portions of the Old Oregon Trail. There are some stretches of rough going between the Missouri River and the Sierra Nevada Mountains, but as a whole it offers an average of fair to good travelling and hotel accommodation practically throughout. West of Chicago the "Overland Trail" is for about 95 per cent of the way the route of the Lincoln Highway.

(2) **Pike's Peak Ocean-to-Ocean Highway**, starting at New York City, crosses New Jersey, Pennsylvania, Ohio, Indiana, Illinois, Missouri, Kansas, Colorado, Utah, Nevada, and California to San Francisco—a most interesting and picturesque route crossing Pennsylvania along the William Penn Highway, and across the Rocky Mountains over new highway construction with magnificent scenery.

(3) **Santa Fé-Grand Canyon-Needles Route**. The original line of the Trail to Sunset was through Albuquerque, Globe, Phoenix, and Yuma, the way it is largely travelled today; but more lately there has been developed a new and shorter connection from Albuquerque through Holbrook, Flagstaff, Williams, Needles, and San Bernardino to Los Angeles. This route affords an opportunity to visit the Grand Canyon of Arizona.

(4) **The Northwest Trail**, through Wisconsin, Minnesota, North Dakota, Montana, Idaho, and Washington should eventually be a popular midsummer route and open a fine territory to through automobile travel.

(5) **Twin Cities-Aberdeen-Yellowstone Park Trail**. This is a newer and shorter route than the original line of the Northwest Trail between Minneapolis and the Yellowstone River in eastern Montana, and likely to carry an increasing proportion of the travel from Chicago, St. Paul, and Minneapolis into the Northwest.

(6) **The All-Southern Route**, through Virginia, North Carolina, Tennessee, Arkansas, Texas, New Mexico, and Arizona, though as yet only partially developed, will ultimately be a popular fall and winter route, offering many scenic attractions and climatic advantages.

(7) **Atlantic-New Orleans-Texas Option**. An increasing amount of travel from the Atlantic seaboard to the southwestern States is following this route despite some drawbacks between Mobile and Houston, especially in wet weather. But it is the most logical way from Florida, southern Georgia and Gulf of Mexico points to New Mexico, Arizona, and southern California.

OVERLAND TRAIL

Improved roads, principally gravel, extend most of the way from Chicago through Geneva, Dixon, and Sterling, Ill., to the Mississippi River, which is crossed into Clinton, Iowa. The **Central Transcontinental Route**, as it is called in that State—passing through Cedar Rapids, Marshalltown, State Center, Jefferson, and Denison to Council Bluffs—provides excellent travelling in dry and settled weather, but is slow and difficult to cover in or after heavy rains. Crossing the Missouri River into Omaha, Nebraska, one has a choice between two important routes from that city to Cheyenne, Wyoming.

The upper one, with which the name "Overland Trail" is more closely identified, follows the Platte River valley through Fremont, Columbus, Grand Island, and Kearney to North Platte, and then along the South Platte River to Big Spring, Nebraska, beyond which the Union Pacific Railroad is paralleled generally to Cheyenne. The lower one, known as the **Omaha-Lincoln-Denver Transcontinental Route**, turns southwest from Omaha to Lincoln, thence nearly direct west, following closely the line of C., B. & Q. R. R. through Hastings and McCook, Nebraska, Sterling and Fort Morgan, Colorado, to Denver. If one is leaving Omaha, with Denver the next important objective point, it may be desirable to use the lower route. A complete circuit from Cheyenne to Denver and return can be made by any who may prefer to follow the main line of the "Overland Trail" throughout, with a side trip to the Colorado capital.

Proceeding west from Cheyenne, the route passes over Sherman Hill, topped by the Ames monument, erected to commemorate the completion of the Union Pacific originally crossing this summit, but now built around it. There are two routes between Laramie and Rawlins, Wyoming, the shorter way *via* Elk Mountain, more hilly but providing a quicker run during good, settled weather, and the longer way along with the railroad through Medicine Bow, preferable for a leisurely trip, or in the late fall or early spring. The final choice between them will be determined by future improvements.

West of Rawlins the going becomes rougher through Wamsutter and across the Continental Divide at Creston. The Bitter Creek country between Point of Rocks and Rock Springs is the roughest stretch on the entire "Overland Trail," though hard going continues most of the way to Granger, Bridger, and Evanston. Near the Utah line the route enters Echo Canyon, the parapet edges of which still show the stone breastworks of the Mormons. Near Echo Station in the canyon the route divides, one option following through Parley's Canyon direct to Salt Lake City, and the other continuing through Weber Canyon to Ogden.

Two Main Routes Across Utah. Strangers approaching Utah from the east will soon discover a keen rivalry between the two routes crossing the northern part of that state, one below and the other above Great Salt Lake. If there is any hesitation about crossing the desert, as with a family party or with children, the tourist should go north to Ogden. From Ogden, the "northern route" follows the general line of the Southern Pacific through Snowville, Elko, Winnemucca, and Lovelock to Reno.

Should Salt Lake City be cut out, and the route taken from Echo Canyon to Ogden, the distance from the Wyoming-Utah line to Reno would be somewhat shorter than the route by Salt Lake City and Ely. Being along the railroad, the towns are naturally closer together, accommodations better, and telephone and telegraph service always fairly near.

Ely is the strategic route centre of eastern Nevada, as here the Salt Lake City-Ely-Goldfield-Los Angeles route ("Midland Trail") crosses the Salt Lake City-Ely-Eureka-Austin-Reno line ("Overland Trail"). The tourist using the option *via* Ogden, bound for Goldfield and Southern California, should continue through Snowville and Kelton to Cobre, thence nearly south to Ely over a reasonably good road. By taking the northern route to Cobre, the traveller saves the desert between Salt Lake City and Ely over the direct route.

Roads Sometimes Very Bad. In brief, the tourist west-bound across Utah and Nevada should consider the essential differences between these two routes, and then choose the one judged best for his particular purpose, temporary road conditions taken into account. One who has crossed southern Wyoming need not fear road conditions on either of the two main routes west of Salt Lake City, except for the occasional heavy rains or cloudbursts.

When the latter are encountered, as on the stretch from Austin to Fallon, Nevada, the desert valleys and flats are converted into shallow lakes of thick, sticky mud, composed largely of adobe or alkali. The many mountain ranges in Nevada run practically north and south, and as the route from Ely *via* Eureka and Austin runs practically east and west, it follows that these mountains must be crossed. This is done *via* passes, most of which are low; after a cloudburst or very heavy rains, some of these passes are washed out, and at the same time deep *arroyos* are encountered at frequent intervals, making progress very slow.

From Reno, on the main line of the Overland Trail, there are again two options across the Sierra Nevada Mountains to Sacramento; one along the railroad across Truckee Summit and the other, and probably most popular, south to Carson City, thence up over the mountains to beautiful Lake Tahoe. To see the beauties of this lake to best advantage, tourists are advised to take a run up the new road built along its west shore to Tahoe Tavern. The route then crosses the Sierra Nevada Mountains over fair roads, and down through Placerville to Sacramento. No better highways are to be found anywhere than those leading from the California capital to San Francisco.

Road travel across the Sierra Nevada Mountains this way is only possible between about May 20th and November 15th, which dates should in fact be considered the extremes, as heavy snows might close the route earlier in the fall or keep it closed later in the spring. Parties starting from the Atlantic Coast about the middle of April will ordinarily reach the Sierras as soon as they can be crossed with comparative ease.

"TRAIL TO SUNSET"

The route of the "Trail to Sunset," largely over the "National Old Trails," has been carefully and deliberately chosen from a strictly touring standpoint, offering varied scenery and numerous points of historic interest. Starting at Chicago, the great meeting-place of travel from the Eastern States, it traverses Illinois on good gravel roads to the Mississippi River, crossing same into Davenport, Iowa. From Davenport to Des Moines it uses the River-to-River Road, graded and marked with a white band on telephone poles throughout its length.

Formerly the trip from Des Moines to Kansas City was made largely by Omaha, and thence south along either side of the Mississippi River. This can still be done if desired, but improvements on the much shorter lines from Iowa City through Chillicothe and from Des Moines through St. Joseph to Kansas City are now sending a large part of the travel that way. Leaving Kansas City, one enters the historic **Santa Fé Trail** and follows it for the most part across the entire length of Kansas. It is marked at frequent intervals with granite monuments erected by the Daughters of the American Revolution; and for a great portion of its length follows the Arkansas River.

From La Junta, Col., the route strikes southwest through the southeast corner of Colorado, still following the Santa Fé Trail to Trinidad, thence across the beautiful Raton Pass into New Mexico.

The route follows closely the A. T. & S. F. R. R. and, still on the Santa Fé Trail through Las Vegas to Santa Fé, traversing large cattle ranges and passing Mexican adobe houses and Indian pueblos. From Santa Fé to Albuquerque the route goes through several Indian towns. At Albuquerque two options to Springerville, Ariz., are available. The best road surface will be found at present on the route leading south from Albuquerque and crossing the Rio Grande at Socorro, thence west *via* Magdalena, San Augustine Plains, Datil Mountains and Rito Quemado to Springerville, Arizona. From the Mormon settlement of Springerville, the route traverses the White Mountain National Forest, crossing the plateau of the White Mountains, 9,000 feet above sea level, and passing through the Apache Indian Reservation.

From Fort Apache the route leads across the Natanes Mountain range, dipping into the desert near the Gila River at Rice in the San Carlos Reservation. It passes through the copper-mining town of Globe, and thence over the magnificent state road leading *via* the famous Roosevelt Dam and down the splendid Salt River Canyon to Phoenix, the Arizona capital. Leaving Phoenix this route soon dips into the Gila Valley, a wide sandy desert, and passes Agua Caliente Springs. Just beyond, at Palomas, a wide detour northward is made on to a mesa to escape deep sand on the direct route along the river. However, this direct route is scheduled for improvement by the State, and will cut off 30 miles. The route goes through a pass in the Castle Dome Mountains and crosses the Gila River at Dome (by ford or ferry, according to the depth of the water), thence 18 miles to Yuma.

Here the tourist crosses the Colorado River over a new bridge. During 1915 there was built and opened a plank road, of heavy timber and with frequent turnouts for passing cars, across the sand hills west of Yuma, giving a direct route through Holtville to El Centro. During the winter of 1915-16 this road was further improved.

Leaving El Centro there are a few more miles across the wonderful Imperial Valley, once the dreaded Colorado Desert, and then the route enters a mountainous country. The going now improves with each mile, and the scenery is superb. The last hundred miles into San Diego are over a fine boulevard. North of San Diego it skirts the ocean for 60 miles; practically the entire distance to Los Angeles is over good roads.

THE WORLD AS THE HOME OF MAN

THE WORLD AS THE HOME OF MAN

GLIMPSES OF LANDS AND PEOPLES

EUROPE

ITS CENTRAL POSITION.—Europe, next to Australia the smallest of the continents, has stamped its influence on the entire world. Indeed, the history of the world largely hinges on the history of Europe. Occupying a central position in the mass of continents, Europe is eminently fitted by nature for this predominance. No other continent can compare with it in the variety of its configuration or in the relative extent of its coast-line. The commercial advantages of this structure are obvious.

It is a no less important consideration that the varied outline of Europe, together with its diversity of surface, has given rise to several centres of civilization, independently developed in their physical seclusion from intervening regions. For nowhere else do we meet with such marked peninsular formations, no vast uninterrupted tracts of land occurring anywhere except in the east. And these very eastern regions are all comprised within the limits of one political state—the vast empire of the Russian Slavs; while all the other European nations are crowded together in what remains of the continent.¹

ITS RELATION TO AMERICA.—Geographically, Europe is an extension of Asia; but though the political boundary is an arbitrary one, the two continents are distinct in culture, religions, and ideals. Civilization has travelled westward, and the seed of Europe has borne rich harvest in the New World.

“East is East, and West is West.” Kipling’s line is too often quoted without reflecting that the “West” is not marked by the western shores of Britain, but has its farther boundary on the Pacific seaboard. The chronicler who records the progress of modern civilization will not think in terms of an Eastern and a Western Hemisphere. The time-honoured division has been an anachronism since the banner of democracy was unfurled on either side of the Atlantic. The “herring pond” is no longer a barrier, but a bond of union between Europe and America. Politically the United States has stood aloof, and in consequence a false notion of separateness has grown in the popular mind. Actually, America is more intimately related to the various European states than any one of such states is to another. The long period of political isolation was finally ended when the soldiers of democracy—French, British, and American—fought side by side on the fields of France and shed their blood in one common cause.

This truer conception of the West is ably expressed by that keen observer and accomplished essayist G. Lowes Dickinson:

That there is a West, in a real sense, with a unit of its own, is, I think, true. But it must be limited in time to the last two centuries, and in space to the countries of Western Europe and the continent of America. So understood, the West forms, in all the most important respects, a homogeneous system. True, it is divided into different nations,

speaking different languages, and pursuing different, and often conflicting, policies; and these distinctions are still so important that they colour our fears and hopes and sympathies, and take form in the burden of armaments and the menace of war. Nevertheless, seen in the perspective of history, they are survivals, atrophying and disappearing. Behind and despite of them there is a common Western mind and a common Western organization. Finance is cosmopolitan; industry is cosmopolitan; trade is cosmopolitan. There is one scientific method, and the results achieved by it are common. There is one system of industry, that known as Capitalism; and the problems arising from it and the solutions propounded appear alike in every nation. There is one political tendency, or fact—that of popular government. There are cognate aims and similar achievements in literature and art. There is, in brief, a Western movement, a Western problem, a Western mentality; and the particular happenings of particular nations are all parts of this one happening.¹

RACES OF EUROPE.—How was Europe peopled? The question might have seemed easy a few years ago, and Macaulay’s schoolboy would have replied glibly that the people of Europe sprang mostly from a common Aryan stock “somewhere in Asia.” Could he prove this? Easily enough. Are not the languages themselves sufficient proof? Are not the different branches of the Indo-European or Aryan family of languages—the Teutonic, Romanic, Slavonic, and Celtic—proof that the people speaking them are members of the same original stock? But these ideas are now more or less exploded. The “Aryan race” rests on no satisfactory evidence; while the most we can say with certainty about the Aryan languages is that they have spread from some geographical centre which must be looked for in some part of Europe and not in Asia at all. But language is not a test of race. The American negro speaks English, but that does not make him of the same race as the Anglo-Saxon. Nor can we readily believe that the tall fair Norwegian is of the same race as the short swarthy Tyrolese, though both speak a kindred tongue. Here we part company with the philologists.

Anthropologists, however, make use of different data. They realize that the shape of the skull, the texture of the hair, and other peculiarities, are more reliable criteria than language. They are generally agreed that there are not merely one but three great racial types in Europe, all intermingled but nevertheless distinct. These are: (1) the *Teutonic*, with long head and face and narrow prominent nose, high stature, blond hair, and blue eyes; (2) the *Alpine*, with round head, broad face, broadish nose, medium height, and stocky build, light chestnut hair, and hazel gray eyes; and (3) the *Mediterranean*, with oval head and face, rather broad nose, medium height, slender build, dark brown or black hair, and dark eyes.

The *Teutonic* or *Northern race* is confined to northwestern Europe, and is seen at its purest in Scandinavia, Denmark, North Germany, and the east of Great Britain. Its original home remains a mystery; though possibly it was in the north-east of Europe.

¹G. G. Chisholm, “Europe” (1899).

¹G. Lowes Dickinson, “Appearances” (1915).

The *Alpine race* is found in the mountains of Central Europe, and also on the Russian plain. This race is regarded by Ripley¹ as an Asiatic element which once pushed forward as far northward as Brittany and even the British Isles, but afterward retired before the advance of the Teutonic race. It is identified with the "Celtic race" of other anthropologists. These Alpine migrants introduced the use of bronze but left no marked traces of themselves among the permanent population of the north. Another Alpine offshoot affected Greece, while in Asia Minor they appear in history as the dreaded Hittites.

The *Mediterranean race* centres along the shores of the Mediterranean, and comprises the ancient Iberians of the western peninsula, the Ligurians of southeastern Gaul and

northern Italy, the Pelasgians or early inhabitants of Greece, and the denizens of northern Africa (the probable headquarters of the race). The Mediterranean race pushed as far north as Scotland and eastward to the Upper Danube.

From earliest times a constant movement of people has been taking place in Europe, from motives of conquest, commerce, or better settlements. The continent itself is peculiarly well fitted for such migrations, for its configuration is such that movement is rendered comparatively easy. Hence we see the chaotic blending of types in almost every country of Europe, and were we guided by speech alone the ethnical problem would remain unsolved. See *Racial Map of Europe*, p. 22.

SYNOPSIS OF EUROPE

(See Maps, pp. 22-29)

EXTENT.—Area 3,814,000 square miles; greatest length, from Cape St. Vincent to the Urals, 3,370 miles; greatest breadth, from Cape Matapan to Nordkyn, 2,400 miles. Europe occupies about one-fourth of the land surface of the globe. It is only one-third the size of Africa and about one-fifth the size of Asia.

POPULATION.—446,805,000, or about one-fourth of the human race.

PENINSULAS.—Europe has nine peninsulas: four in the south—The Peninsula (Spain and Portugal), Italy, Balkan Peninsula, and the Crimea; four in the north—Jutland, Scandinavia, Kanin, and Kola; and one in the west—Brittany.

The Isthmus of Corinth connects the Morea with the mainland of Greece. The Isthmus of Perekop connects the Crimea with the mainland of Russia.

CAPES.—Nordkyn, North Cape, and the Naze in Norway; the Skaw in Jutland; Ortegál and Finisterre in the north of Spain; Cape Wrath, north of Scotland, Cape Clear, south of Ireland, and Land's End, southwest of England; Roca and St. Vincent in Portugal; Trafalgar and Tarifa in the south of Spain; Santa Maria di Leuca and Spartivento in Italy; and Matapan in the south of Greece. *North Cape* on an island is the most northerly point of Europe. The most northerly point on the mainland is *Cape Nordkyn*. *Cape Roca* is the most westerly and *Cape Tarifa* the most southerly point.

SEAS, BAYS, GULFS, ETC.—Europe is the continent of inland seas. The three on the north are the White Sea, the Baltic, and the North Sea; the three on the south are the Caspian, the Black, and the Mediterranean. The *White Sea* is a vast bight of the Arctic Ocean and is very shallow. The *Baltic* is shallow and almost tideless; its chief gulfs are those of Bothnia, Finland, and Riga. The *North Sea* is a shallow sea between Great Britain and the Continent. It contains numerous sandbanks, over some of which there is only 100 feet of water. It has two large bights, the *Zuider Zee* and the *Dollart*. The *Irish Sea* between Great Britain and Ireland may be regarded as part of the North Sea, though it is much deeper. The *Caspian* is shallow in the north and very deep in the south. The *Black Sea* receives the drainage of nearly one-third of Europe. It is connected to the Mediterranean by the Bosphorus and Sea of Marmora and the Dardanelles. Its branch, the *Sea of Azof*, is very shallow. The *Mediterranean* is the largest inland sea in the world. It is 2,330 miles long and has an area of 1,007,220 square miles. It includes four minor seas—the *Adriatic* (with the Gulfs of Trieste and Quarnero), the *Tyrrhenian*, the *Ionian*, and the *Ægean*. It includes also the Gulfs of the Lion (so called from its stormy character), Genoa, and Corinth on the European side, and Sidra and Kabes on the African. The Bay of Biscay on the Atlantic is one of the stormiest seas in the world.

STRAITS AND CHANNELS.—The most important waterways are the passages between the Atlantic and the North Sea, between the North Sea and the Baltic, between the Atlantic and the Mediterranean, and between the Mediterranean and the Black Sea.

The *English Channel* (called by the French "La Manche" or the Sleeve, from its shape) and the Strait of Dover connect the North Sea with the Atlantic. The *Strait of Dover* between France and England is twenty miles wide, and its greatest depth does not exceed 177 feet. On account of the enormous traffic between England and the Continent a tunnel under the strait has been proposed. The *Skager-Rak* and *Kattegat* form a continuous waterway into the Baltic, which is blocked by a group of islands. Between the mainland and these lie the *Sound*, the *Great Belt*, and the *Little Belt*, the first of which is the most frequented passage. The *Strait of Gibraltar* is the passage into the Mediterranean. The *Strait of Messina*, between Italy and Sicily, connects the Tyrrhenian Sea and Ionian Sea. The *Strait of Otranto* joins the Ionian with the Adriatic. The *Strait of Bonifacio* lies between Sardinia and Corsica. The *Dardanelles* unites the Ægean and the Sea of Marmora. The *Bosphorus* leads from the Sea of Marmora into the Black Sea.

ISLANDS.—The chief islands in the Arctic Ocean are Jan Mayen, Vaygach, and the archipelago of Nova Zembla. In the Atlantic are the Lofoten Islands off the coast of Norway; Iceland and the Faroe Islands; the British Isles, including the Channel Islands, off the north coast of France; and the Azores, 900 miles west of Portugal. In or at the entrance of the Baltic are the Danish Archipelago (Zealand, Fünen, etc.); Rügen and Bornholm;

Öland and Gothland; Dagö and Ösel; Åland Islands. In the Mediterranean are the Balearic Islands (the largest of which is Majorca); Corsica, and Sardinia (with Elba); Sicily and Malta; the Ionian Islands, west of Greece; the Cyclades, and Sporades in the Ægean (with Negropont, the largest island in that sea); Crete and Cyprus. Cyprus is generally regarded as an Asiatic island. The largest island in the Mediterranean is Sicily; the next Sardinia.

MOUNTAINS.—The mountain ranges of Europe lie chiefly in the south and in the northwest. The principal ranges are: the *Sierra Nevada* in Spain (highest peak, Mulhacén, 11,421 ft.); the *Pyrenees* between France and Spain (highest point, Pic de Néthou, 11,165 ft.); the *Alps*, the highest mountains in the interior of Europe (highest peak, Mont Blanc, 15,781 ft.); the *Apennines* in Italy (highest peak, Monte Corno, 9,585 ft.); the *Carpathians* in Austria-Hungary, inclosing the Great Plain of Hungary (highest peak, Ferencz József, 8,737 ft.); the *Balkans* extending from Serbia to the Black Sea (mean height of the highest range, 6,500 ft.); the *Caucasus* between the Black Sea and the Caspian (highest peak and loftiest mountain in Europe, Mount Elbruz, about 18,526 ft.); the *Ural Mountains*, formerly called by the Russians "The Girdle of the Globe," on the east of Russia in Europe (highest peak, Toll-Poss-Is, 5,540 ft.); and the *Scandinavian Mountains*, the southern portion of which is the higher (highest peak, Galdhøpiggen, the loftiest summit in Norway, 8,400 ft.).

VOLCANOES.—The volcanoes of Europe are, with the exception of Mount Hekla, limited to the islands and peninsulas of the Mediterranean. The principal active volcanoes are: *Mount Hekla* in Iceland (5,110 ft.); *Etna*, the highest mountain in Sicily (10,867 ft.); *Vesuvius*, a flattened conical mountain on the Bay of Naples (4,267 ft.); and *Stromboli*, one of the Lipari Islands in the Mediterranean.

PLATEAUS.—Unlike Asia, Europe has no very high or extensive tablelands. It, however, possesses four well-marked plateaus in its western half: the Spanish Plateau; the Swiss and the Bavarian Plateau; the Plateau of Transylvania; and the Balkan Plateau.

PLAINS.—The Great Plain of Europe extends from the Pyrenees to the Urals, and embraces about two-thirds of the surface of the continent. It is sometimes called Low Europe. There are also plains in High Europe, namely, the plains of: Hungary, between the Carpathians and the Alps; Wallachia and Bulgaria, called also the "Plain of the Lower Danube"; Lombardy, in the valley of the Po, between the Alps and the Apennines; Bohemia, west of the Carpathians and drained by the Elbe; and Andalusia, forming the lower part of the valley of the Guadalquivir; Languedoc, in the south of France, between the Alps and the Cevennes, and the Upper Rhine, between the Black Forest and the Vosges.

WATERSHED.—The great Watershed of Europe runs from northeast to southwest, stretching from the Urals to the Pyrenees. The northwestern slope is not so wide as the southeastern; hence the longest rivers flow into the southern seas.

RIVERS.—The rivers of Europe are equally distributed, and most of them are navigable, with good harbours at or near their mouths.

CHIEF RIVERS DRAINING NORTHWESTERN SLOPE

RIVER	LENGTH (miles)	SOURCE	COURSE*	MOUTH
Guadalquivir . . .	374	E. Spain	W. & S.	Atlantic
Guadiana	515	E. Spain	W. & S.	Atlantic
Tagus	566	E. Spain	W.	Atlantic
Douro	500	N. Spain	W.	Atlantic
Garonne	355	Pyrenees	N. W.	Bay of Biscay
Loire	543	S. E. France	N. W. & W.	Bay of Biscay
Seine	480	E. France	N. W.	English Channel
Meuse	575	Vosges	N. & W.	North Sea
Rhine	810	Mt. St. Gothard	N.	North Sea
Elbe	700	Bohemia	N. W.	North Sea
Oder	552	Carpathians	N. W.	Baltic
Vistula	652	Carpathians	N. W. & N.	Baltic
Niemen	505	W. Russia	W. N. & W.	Baltic
Düna	630	Valdai Hills	N. W.	Gulf of Riga
Dwina	1,100	N. Russia	N. W.	White Sea
Petchora	980	Ural Mts.	N. W.	Arctic Ocean

¹W. Z. Ripley, "The Races of Europe" (1900).

*To be followed on the map.

CHIEF RIVERS DRAINING SOUTHEASTERN SLOPE

RIVER	LENGTH (miles)	SOURCE	COURSE	MOUTH
Ebro	470	N. E. Spain	S. E.	Mediterranean
Rhone	504	Mt. St. Gothard	S.	Gulf of the Lion
Po	418	Mt. Viso (Alps)	E.	Adriatic
Danube	1,770	Baden	E.	Black Sea
Dniester	850	Carpathians	S. E.	Black Sea
Dnieper	1,330	Central Russia	S. E., S., & S. W.	Black Sea
Don	1,150	Central Russia	S.	Sea of Azof
Volga	2,300	Valdai Hills	E. & S.	Caspian
Ural	1,300	Urals	S. W. & S.	Caspian

The Danube. The Danube and the Rhine are the two great waterways of Europe. The Danube is the only large European river that flows due east; and it is therefore the great highway to the East for South Germany, Austria, Hungary, Serbia, Roumania, and Bulgaria. The Danube drains one-thirteenth of the surface of Europe. Its course is divided into Upper, Middle, and Lower. The current of the *Upper Danube* is rapid, descending through a mountainous country as far as Vienna. The *Middle Danube* flows from Vienna through the Plain of Hungary to the Austrian boundary. There it passes through a ravine 60 miles in length, between the Carpathian and Balkan Mountains. The end of this ravine is a narrow gorge called the *Iron Gate*. The *Lower Danube*, after flowing through a flat country, discharges itself into the Black Sea by three principal mouths. The Danube is very broad in some places, and studded with islands. Steam vessels ply between the chief towns on its banks, though navigation is in some parts difficult. The chief tributaries are the Iser, Inn, Theiss, Drave, Save, Aluta, Sereth, and Pruth.

The Rhine. The Rhine, the glory of the Fatherland, is the great waterway for Western Europe. Rising in two streams—the *Vorder Rhine* and the *Hinter Rhine*—on the eastern slopes of Mount St. Gothard, the Rhine flows northward into Lake Constance. Thence it continues its course over a rocky bed west to Basel, forming several falls and rapids, the most noted being the Falls of Schaffhausen. Entering Germany, the Rhine flows in a northerly direction through a wide valley, between the Vosges and Black Forest Mountains. It turns to the west at Mainz and then proceeds in a northwest direction. From Bingen to Bonn the scenery is wild and beautiful, presenting to the view high mountains, steep rocks, dense forests, vine-clad slopes, romantic valleys, flourishing towns, pretty villages, ancient castles, old ruins, and picturesque islands. Below Bonn, the river flows through a flat country to the North Sea. After entering Holland, the Rhine divides into several arms, which intermingle with two other rivers, the *Ijssel* and the *Meuse*. With these streams it forms a vast delta, which contributes much to the wealth of Holland. The chief tributaries are the Aar, Neckar, Main, and Moselle.

With the Danube, the Rhine at one time formed the boundary of the Holy Roman Empire. Before 1870, part of its left bank was French territory; but since the Franco-Prussian War of 1870-71, both banks from the Swiss to the Dutch frontiers, have been in the possession of the German Empire.

LAKES.—*Ladoga*, in the northwest of Russia, is the largest lake in Europe (area about 7,000 square miles); the other chief lakes are *Onega*, northeast of Lake Ladoga; *Wener*, *Wetter*, and *Mälär*, in Sweden; *Constance*, *Geneva*, and *Lucerne* in Switzerland; and *Maggiore*, *Como*, and *Garda*, in the north of Italy. The Swiss and Italian lakes are celebrated for the beauty of their scenery.

MINERALS.—Europe is well supplied with mineral wealth, more especially coal, iron, lead, copper, and salt. Great Britain, Germany, and Austria-Hungary contain the largest quantity of minerals. Precious metals are rare.

MINERALS	WHERE FOUND
Coal	Great Britain, Germany, Austria-Hungary, France, Belgium, Russia, Italy, Holland, Sweden, Bulgaria, Serbia, Roumania, Greece, Portugal.
Iron	Germany, Great Britain, Spain, Russia, Sweden, France, Austria-Hungary, Italy, Belgium, Portugal.
Lead	Germany, Spain, Great Britain, Italy, France, Austria-Hungary.
Copper	Spain, Germany, Russia, Portugal, Italy, Norway, Austria-Hungary, Great Britain, France, Sweden.
Salt	Great Britain, Russia, Germany, France, Austria-Hungary, Italy, Spain, Roumania, Greece.
Zinc	Germany, Italy, Spain, France, Sweden, Russia, Great Britain, Austria-Hungary, Greece, Belgium.
Tin	Great Britain.
Quicksilver	Spain, Austria-Hungary, Germany.
Gold	Russia, Hungary.
Silver	Germany, Austria-Hungary.
Petroleum	Russia, Austria-Hungary, Roumania, Germany.

VEGETABLE PRODUCTS.—The chief grain crops are wheat, barley, rye, oats, and, in southern Europe, maize and rice. Russia is the chief wheat producing country of Europe. *Rye*, which can be grown on poorer soils than wheat, is produced principally in Russia, Germany, and Austria-

Hungary. It is mainly used in making a "black" bread, which is largely eaten in central and eastern Europe. *Barley* is cultivated to the greatest extent in the wheat areas. It is now chiefly produced to obtain the malt for brewing. *Oats* are grown in Russia and Germany, and in the north and west of the British Isles. *Maize* is cultivated in Austria-Hungary, Roumania, and Italy. *Rice* is grown chiefly on the Plain of Lombardy.

Other important crops are the sugar-beet, extensively cultivated in central Europe, potatoes, flax, hemp, and hops. Apples, pears, plums, cherries, currants, and gooseberries are grown in the middle latitudes; the vine and olive in the south; and oranges, lemons, figs, almonds, and mulberries along the shores of the Mediterranean. See *Economic Map of Europe*, p. 27.

ANIMALS.—*Wild animals:* The boar and the brown bear are found in the German forests, in the Alps, and the Pyrenees. Wolves are numerous in Russia. The chamois and the ibex (now rare) are found on the higher parts of the Alps and Carpathians. The beaver is found in Russia, Sweden, Poland, Finland, and Lapland, but it is dying out.

Domestic animals: The horse, ass, dog, ox, sheep, goat, pig, and in Lapland the reindeer.

Birds: In the north, numbers of wild geese, swans, eider ducks, etc., frequent the shores; while in the west and south are found the stork, crane, and flamingo. Birds of prey are numerous, and include the eagle and vulture (in the Alps and Pyrenees), falcon, hawk, and owl.

Reptiles: Less numerous than in any other continent, and few are venomous.

Fishes: Plentiful in all the seas and rivers of Europe. The tunny and sardine are found in the Mediterranean, and are the most important food fishes of southern Europe. In the seas of northern Europe are the cod, mackerel, herring, pilchard, lobster, crab, and many others. Salmon, trout, etc., are abundant in the large rivers. The sturgeon is plentiful in the Caspian Sea and the Volga, and a large trade is done chiefly in the preserved roe, called *caviare*, and in isinglass.

Insects: Not so troublesome as in some parts of the globe. The silkworm and honey bee are the two most useful.

COUNTRIES OF EUROPE

COUNTRY	AREA (sq. miles)	POPULATION ¹		CAPITAL	DESIGNATION
		Total	Per sq. mile		
United Kingdom	121,090	45,500,000	374	London	Kingdom
Norway	124,675	2,391,000	19	Christiania	Kingdom
Sweden	172,920	5,521,000	32	Stockholm	Kingdom
Denmark	15,586	2,775,000	180	Copenhagen	Kingdom
Netherlands	12,741	5,858,000	407	Amsterdam	Kingdom
Belgium	11,373	7,423,000	658	Brussels	Kingdom
France	207,129	39,601,000	193	Paris	Republic
Germany	208,825	64,925,000	311	Berlin	Empire
Russia (in Europe)	2,123,009	141,359,000	67	Petrograd	Republic
Austria-Hungary	261,027	51,390,000	196	Vienna	Empire
Switzerland	15,955	3,765,000	236	Bern	Republic
Italy	110,688	34,671,000	315	Rome	Kingdom
Spain	195,056	19,950,000	103	Madrid	Kingdom
Portugal	35,500	5,960,000	155	Lisbon	Republic
Montenegro	5,475	435,000	80	Cetinje	Kingdom
Serbia	33,708	4,623,000	141	Belgrade	Kingdom
Bulgaria	42,000	4,467,000	107	Sofia	Kingdom
Roumania	53,937	7,601,000	142	Bukharest	Kingdom
Greece	44,780	4,256,000	95	Athens	Kingdom
Turkey (in Europe)	7,000	1,600,000	230	Constantinople	Empire

In addition to the above countries, there are also the following small states: LUXEMBURG, a Grand Duchy in Central Europe (area 999 square miles, population 298,000), LIECHTENSTEIN, a principality on the Upper Rhine (area 65 square miles, population 9,854); ANDORRA, a miniature Republic in the Pyrenees (area 175 square miles, population 5,231); SAN MARINO, another miniature Republic, on the Adriatic (area 24 square miles, population 12,000) MONACO, a principality on the Mediterranean between France and Italy, in which is *Monte Carlo* with its famous casino. Monaco is about 3 miles long and 1½ miles broad, with 23,000 inhabitants and a yearly average of 1,500,000 visitors. The whole available ground is built over, so that there is no cultivation.

UNITED KINGDOM

(See Map, p. 33)

Britain is "Home" to many millions of people scattered over the face of the globe. Her sons have carved out new homes for themselves in distant lands; but the ties of blood still bind, and when the existence of the homeland is threatened by the foes of democracy, the sons of Britain rush unbidden from the ends of the world to fight for the struggling Motherland.

This little island has a record more wonderful than that of Rome. Its history, its literature, its laws, and its traditions are the common heritage of the English-speaking race. It is the land which gave birth to the founders of the American commonwealth, and from which almost all of our great men have derived their descent. The severing of political ties when a German king of England tried to stamp his

autocratic rule on a free-spirited citizenry did not sever the surer ties of kinship and common inheritance between the two peoples. The peace of more than a century has been solemnized on the battlefields of Europe, where Briton and American fought as brothers in arms.

In commerce Great Britain is our best customer, and her vast dependencies are open to American enterprise without any hindrance whatsoever. Next to the United States, the United Kingdom is in every sense of first importance to Americans, and demands relatively more space than can be given to other European countries.

THE ENGLISH.—The traveller in the United Kingdom will find that the picture drawn by the kindly American Ralph

¹See *Population Map of Europe*, p. 28.

Waldo Emerson in his "English Traits" is as fundamentally true to-day as it was in 1847.

The nation sits in the immense city they have builded, a London extended into every man's mind, though we live in Van Dieman's Land or Capetown. Faithful performance of what is undertaken to be performed, they honour in themselves, and exact in others, as certificate of equality with themselves. The modern world is theirs. They have made and make it day by day. The commercial relations of the world are so intimately drawn to London, that every dollar on earth contributes to the strength of the English Government. And if all the wealth in the planet should perish by war or deluge, they know themselves competent to replace it.

They have approved their Saxon blood, by their sea-going qualities; their descent from Odin's smiths, by their hereditary skill in working in iron; their British birth, by husbandry and immense wheat harvests; and justified their occupancy of the centre of habitable land, by their supreme ability and cosmopolitan spirit. They have tilled, builded, forged, spun, and woven. They have made the island a thoroughfare; and London a shop, a law-court, a record office, and scientific bureau, inviting to strangers; a sanctuary to refugees of every political and religious opinion; and such a city that almost every active man, in any nation, finds himself, at one time or other, forced to visit it.

In every path of practical activity, they have gone even with the best. There is no secret of war, in which they have not shown mastery. The steam-chamber of Watt, the locomotive of Stephenson, the cotton-mule of Roberts, perform the labour of the world. There is no department of literature, of science, or of useful art, in which they have not produced a first-rate book. It is England, whose opinion is waited for on the merit of a new invention, an improved science. And in the complications of the trade and politics of their vast empire, they have been equal to every exigency, with counsel and with conduct. Is it their luck, or is it in the chambers of their brain—it is their commercial advantage, that whatever light appears in better method or happy invention, breaks out *in their race*. They are a family to which a destiny attaches, and the Banshee has sworn that a male heir shall never be wanting. They have a wealth of men to fill important posts, and the vigilance of party criticism insures the selection of a competent person.

THEIR ENERGY.—"A proof of the energy of the British people, is the highly artificial construction of the whole fabric. The climate and geography I said were factitious, as if the hands of man had arranged the conditions. The same character pervades the whole kingdom.

Bacon said, "Rome was a state not subject to paradoxes"; but England subsists by antagonisms and contradictions. The foundations of its greatness are the rolling waves; and, from first to last, it is a museum of anomalies. This foggy and rainy country furnishes the world with astronomical observations. Its short rivers do not afford water-power, but the land shakes under the thunder of the mills. There is no gold mine of any importance, but there is more gold in England than in all other countries. It is too far north for the culture of the vine, but the wines of all countries are in its docks. The French Comte de Lauraguais said, "no fruit ripens in England but a baked apple"; but oranges and pine-apples are as cheap in London as in the Mediterranean. The Mark-Lane Express, or the Custom House Returns bear out to the letter the vaunt of Pope,

"Let India boast her palms, nor envy we
The weeping amber, nor the spicy tree,
While, by our oaks, those precious loads are borne,
And realms commanded which those trees adorn."

THEIR DOMESTICITY.—"Domesticity is the taproot which enables the nation to branch wide and high. The motive and end of their trade and empire is to guard the indepen-

dence and privacy of their homes. Nothing so much marks their manners as the concentration of their household ties. This domesticity is carried into court and camp. Wellington governed India and Spain and his own troops, and fought battles like a good family-man, paid his debts, and, though general of an army in Spain, could not stir abroad for fear of public creditors.

They keep their old customs, costumes, and pomps, their wig and mace, sceptre and crown. The middle ages still lurk in the streets of London. . . . A hereditary tenure is natural to them. Offices, farms, trades, and traditions descend so. Their leases run for a hundred and a thousand years. Terms of service and partnership are life-long, or are inherited. "Holdship has been with me," said Lord Eldon, "eight-and-twenty years, knows all my business and books." Antiquity of usage is sanction enough. Wordsworth says of the small freeholders of Westmorland, "Many of these humble sons of the hills had a consciousness that the land which they tilled had for more than five hundred years been possessed by men of the same name and blood." The ship-carpenter in the public yards, my lord's gardener and porter, have been there for more than a hundred years, grandfather, father, and son.

DISLIKE OF CHANGE.—"The English power resides also in their dislike of change. They have difficulty in bringing their reason to act, and on all occasions use their memory first. As soon as they have rid themselves of some grievance, and settled the better practice, they make haste to fix it as a finality, and never wish to hear of alteration more. . . .

The cockneys stifle the curiosity of the foreigner on the reason of any practice, with "Lord, sir, it was always so." They hate innovation. Bacon told them, Time was the right reformer; Chatham, that "confidence was a plant of slow growth"; Canning, to "advance with the times"; and Wellington, that "habit was ten times nature." All their statesmen learn the irresistibility of the tide of custom, and have invented many fine phrases to cover this slowness of perception, and prehensibility of tail. }

A seashell should be the crest of England, not only because it represents a power built on the waves, but also the hard finish of the men. The Englishman is finished like a cowry or a murex. After the spire and the spines are formed, or, with the formation, a juice exudes, and a hard enamel varnishes every part. The keeping of the proprieties is as indispensable as clean linen. No merit quite countervails the want of this, whilst this sometimes stands in lieu of all. "'Tis in bad taste," is the most formidable word an Englishman can pronounce.

STABILITY.—"The stability of England is the security of the modern world. . . . The English stand for liberty. The conservative, money-loving, lord-loving English are yet liberty-loving; and so freedom is safe: for they have more personal force than any other people. The nation always resists the immoral action of their government."

MANY-HEADED AND MANY-NATIONED.—"What we must say about a nation is a superficial dealing with symptoms. We cannot go deep enough into the biography of the spirit who never throws himself entire into one hero, but delegates his energy in parts or spasms to vicious and defective individuals. But the wealth of the source is seen in the plentitude of English nature.

What variety of power and talent; what facility and plenteousness of knighthood, lordship, ladyship, royalty, loyalty; what a proud chivalry is indicated in "Collin's Peerage," through eight hundred years! What dignity resting on what reality and stoutness! What courage in

war, what sinew in labour, what cunning workmen, what inventors and engineers, what seamen and pilots, what clerks and scholars! No one man and no few men can represent them. It is a people of myriad personalities. Their many-headedness is owing to the advantageous position of the middle class, who are always the source of letters and science. Hence the vast plenty of their æsthetic production. As they are many-headed, so they are many-nationed: their colonization annexes archipelagoes and continents, and their speech seems destined to be the universal language of men. I have noted the reserve of power in the English temperament. In the island, they never let out all the length of all the reins, there is no Berserkir rage, no abandonment or ecstasy of will or intellect, like that of the Arabs in the time of Mahomet, or like that which intoxicated France in 1789. But who would see the uncoiling of that tremendous spring, the explosion of their well-husbanded forces, must follow the swarms which pouring now for two hundred years from the British islands, have sailed, and rode, and traded, and planted through all climates, mainly following the belt of empire, the temperate zones, carrying the Saxon seed, with its instinct for liberty and law, for arts and for thought—acquiring under some skies a more electric energy than the native air allows—to the conquest of the globe. Their colonial policy, obeying the necessities of a vast empire, has become liberal. Canada and Australia have been contented with substantial independence. They are expiating the wrongs of India, by benefits; first, in works for the irrigation of the peninsula, and roads and telegraphs; and secondly, in the instruction of the people, to qualify them for self-government when the British power shall be finally called home.

PACIFIC TYPE OF CIVILIZATION.—The British constitution has been the model for most countries that have adopted a constitutional and democratic form of government; and being democratic and desiring peace to pursue its industrial life, Great Britain stands for a pacific as opposed to a military type of civilization. Her regular army had always been small in proportion to her population, so small indeed that at the beginning of the Great War the German Emperor referred to it as a “contemptible little army.” And yet that same “contemptible” army stemmed the onrush of the Teuton hordes at Ypres, and when its numbers grew more equal no German army could stand before it. *you*

take yourselves.
Although Great Britain recognizes that universal service may be necessary in some countries, and at times even in every country, she has preferred, as Viscount Bryce graphically puts it, “to leave her people free to follow their civil pursuits, and had raised her army by voluntary enlistment. Military and naval officers have never, as in Germany, formed a class by themselves, have never been a political power, or exercised political influence. The Cabinet Ministers placed in charge of these two services have always been civilian statesmen—not Generals or Admirals—until the outbreak of the present war, when, for the first time, under the stress of a new emergency, a professional soldier of long experience¹ was placed at the head of the War Department. England has repeatedly sought at European Conferences to bring about a reduction of war armaments, as well as to secure improved rules mitigating the usages of war; but has found her efforts baffled by the opposition of Germany. In none of the larger countries, except perhaps in the United States are the people so generally and sincerely attached to peace.

It may be asked why, if this is so, does England maintain so large a navy. The question deserves an answer. Her navy is maintained for three reasons. The first is, that as her army has been very small she is obliged to protect herself by a strong home fleet from any risk of invasion. She has never forgotten the lesson of the Napoleonic wars, when it was the navy that saved her from the fate which befell so many European countries at Napoleon's hands. Were

she not to keep up this first line of defence at sea, a huge army and a huge military expenditure in time of peace would be inevitable. The second reason is that as England does not produce nearly enough food to support her population, she must draw supplies from other countries, and would be in danger of starvation if in war time she lost the command of the sea. It is, therefore, vital to her existence that she should be able to secure the unimpeded import of articles of food. And the third reason is that England is responsible for the defence of the coasts and the commerce of her colonies and other foreign possessions, such as India. These do not maintain a naval force sufficient for their defence, and the mother country is therefore compelled to have a fleet sufficient to guarantee their safety and protect their shipping. No other great State has such far-reaching liabilities, and, therefore, no other needs a navy so large as Britain must maintain. In this policy there is no warlike or aggressive spirit, no menace to other countries. It is a measure purely of defence, costly and burdensome, but borne because her own safety and that of her colonies absolutely require it. Neither has Britain used her naval strength to inflict harm on any other countries. In time of peace she has not tried to use it to injure the commerce of her chief industrial competitors. It did nothing to retard the rapid growth of the mercantile marines of Germany and Norway, both of which have been immensely developed in recent years. The freedom of the seas has, in time of peace, never been infringed by her.

FREE TRADE.—So far from using her sea-power to the prejudice of other countries in peace time, and trying by its aid to promote her own commercial interests, Britain is the only great country which has opened her doors freely to the commerce of every other country. *propaganda*

Sixty years ago she adopted, and has ever since consistently practised, the policy of free trade. She imposes upon imports no duties intended to protect her own agriculture or her own manufactures. She gives no advantages to her own shipping in her own ports, she pays no bounties to her own shipping, she allows even coasting trade between her own ports to be open on equal terms to the ships of all nations. A Dutch or Swedish or Norwegian vessel may trade from Newcastle to London as freely as a British vessel. And this free trade policy has been carried out consistently in all the British colonial possessions. Neither in India, nor in those British colonies whose tariffs are controlled by the mother country, are duties imposed upon foreign imports, except for the purpose of raising revenue. Such self-governing dominions as Canada and Australia have control of their own tariffs and impose what duties they please—even against the mother country; but that is a part of the self-government which these dominions have long enjoyed.¹

ENGLISH COTTAGE GARDENS.—England is one great garden. “We often hear this phrase,” says Dr. W. Miller, “but the glory of its meaning does not burst upon an American until he has set foot upon English soil. It means that every home has its garden; that every foot of ground not occupied by buildings, is likely to be cultivated to the utmost; and that one cannot drive or ride or walk anywhere without seeing beautiful gardens.”

People who have travelled more than I, say that English cottages and their gardens are the most beautiful in the world. I saw thousands of them and they were endlessly delightful. . . .

The American is used to seeing ugliness everywhere—wooden buildings, no national style of architecture, billboards, big advertisements, and houses without gardens. When he goes to England he sees beauty everywhere—houses built of brick and stone, a national style of architec-

¹Viscount Kitchener of Khartum.

¹Rt. Hon. Viscount Bryce, in “The War of Democracy” (1917).

ture, no billboards, shop signs relatively small and modest, and every foot of ground cultivated to the utmost. These general conditions are enough to put the American in an enthusiastic mood, and enthusiasm rises to ecstasy when he finds that even the labouring people live amid beautiful surroundings. Every cottage is built of permanent materials and every cottage is surrounded by fruits, flowers, or other forms of living beauty. It all seems too good to be true, because American labourers generally live in big tenements or else in monotonous rows of wooden cottages, which are temporary and subject to disastrous fires, while the yards are usually bare and shabby or foul with weeds and rubbish. Therefore, I say the infinite number and variety of English cottage gardens is enough to explain five tenths of the American tourist's enthusiasm.

The second great reason why we cannot copy English cottage gardens is that about four tenths of their charm is due to the cottages themselves and these do not fit our present mode of life at all. . . . Old cottages in England are always either beautiful or picturesque, but on the practical side they are invariably deficient.

For instance, thatched roofs are dreams of beauty, and once upon a time they were economical in England; but in America they cost too much, and even in England it is against the law in some districts to thatch new cottages. Small window panes are poetic, but hard to clean. Rambling structures may be lovable, but they multiply steps and waste a woman's strength. Crooked stairs may be romantic, but they are dangerous. High roofs mean a waste of room.

The English cottage which nestles so sweetly among the ever-blooming roses was developed before people knew anything about germs and before the importance of ventilation and sunlight was understood. . . .

To make exact copies of English cottages is foolish, and we shall never have charming cottage gardens in America until we have charming cottages in an *American style*. . . .

It is my conviction that nine tenths of the charm of English cottage gardens is due to the environment; only one tenth seems to me intrinsic. The gardens themselves owe their beauty to two elements—the materials, or plants, and the national style of gardening.¹

HORSE-RACING.—In a land where the breeding of horses is carried to such a high pitch of perfection, racing is regarded as a practical necessity, and is the only way of ascertaining how animals may be most judiciously employed for breeding purposes. Horse-racing, "the national sport," has greatly increased in popularity in the British Isles. Of the five "classic" races run each season of three-year olds, the chief one is the Derby which is held at Epsom during the week which includes May 31st.

The Derby.—An excellent picture of the Derby is presented by Richard Harding Davis in "Our English Cousins."

In a country given to spectacular exhibitions—Wimbledon, jubilee processions, boat-races, naval reviews—the Derby strikes one as quite the most remarkable thing of this sort that the English do, and they do them all particularly well. In no other country, I believe, do sixty thousand people travel sixteen miles to camp out around a race-track, and then break up camp and march back again the same night.

As a matter of fact, they do not all march back the same night. The gypsies and the fakirs, and hundreds of others around the training-stables (for the racing at Epsom Downs lasts a week), remain overnight, and this encampment, with the fires burning in the open air and the lights showing from under the canvas, makes as weird and wonderful a scene as that of the Derby day itself. But in the morning this sleeping bivouac rouses itself, and the tents go up as easily as umbrellas, and an army of people crowd the track and the grounds as thickly as the City Hall Square is crowded on the night of a Presidential election. The coaches face the

grandstand from the opposite side of the track. They are packed as closely together as the omnibuses in front of the Bank of England, so that one could walk for half a mile from one to the other of them without once touching the ground. The first which come of these take the best places, and the last are crowded in on them by the servants and the unemployed, who take out the leaders and shove with the wheelers until they have locked wheels with two other coaches, and have apparently entangled themselves forever. These coaches form a barrier three rows deep along the course, and the dresses of the women on top of them, and the luncheons, before their pyramids are demolished, make the place look like a succession of picnics in mid-air.

Back of these, down the valley between the curves of the horseshoe, are tents and the rings where wooden horses circle and prance, and railroad cars which mock the laws of gravity, dashing up and down wooden hills, and where there are shooting-galleries and boxing-booths and swings, and rows after rows of gypsy wagons (little green and red houses on wheels, with a pair of steps at the back like a bathing-machine), and solid phalanxes of shouting book-makers. These last stand in couples, dressed ridiculously alike, as a guarantee that they do not intend to lose themselves in the crowd, and with banners behind them to tell who they may be, from whence they come, and what a very old and trustworthy firm theirs is. . . .

You see so much to entertain you on the grounds that you forget about the races, although the sight from the coach is in its broader view, quite as amusing and impressive as the one you obtain by pushing through the crowd. Instead of moving about to see other people the other people come to call on you, chiefly musicians of several nationalities who sing sentimental songs sentimentally to the young women on the next drag, who try to pretend they do not know that they are being made to look ridiculous; and little yellow-haired girls on stilts, who seat themselves on the box, and draw their stilts up out of the way and sing: "I'm er blushin' bud of innerence, papa says I'm a great expense," and troops of burnt-cork comedians who pretend they know the people on the coaches, and who flatter the weak in spirit by crying: "Ahh! glad to see your lordship 'ere to-doijy. I 'ain't forgot the 'arf-crown your lordship give me when your lordship won that pot of money of King Remus, Kemton Park Waiy. Your lordship allus was a good one at pickin' a winner. Now, wot can we sing at yer lordship's command ter-day?" At which his lordship, being a real-estate agent from Chicago, is extremely pleased, and commands his favourite melody.

There are a great many Americans at the Derby. It is something of which they have all heard and in consequence want to see. . . .

The races at the Derby are very beautiful examples of how grand a spectacle a horse-race can be. . . . What first puzzles one at the Derby is where the horses are going to find room to run, for the track is blocked with the mob, which stands doubtfully fingering the sixpences in its pockets, and listening to the young men who are selling tips on the race to follow, and beseeching the crowd about them to remember what they foretold at the Manchester races a year ago. . . .

Mixed with these young men are evangelists with an organ on wheels, to the accompaniment of which they sing hymns. They are not the Salvationists, though one sees the red jerseys of these also, but soberly clothed, earnest-looking men, perfectly impassive to the incongruity of their surroundings, and fervent in their hope of accomplishing some good. They have as large a circle about them as has the tipster, and they are too familiar a sight wherever many people are gathered together in England to be either scoffed at or encouraged. But when the bell rings, all of these—tipster, evangelist, and coloured comedian—fly before the important business of the moment, and there is a rush to the rails, which men clutch desperately like wrecked mariners on a mast-head, and a sudden overflow among the carriages as the mounted police ride slowly along the length of the track, leaving a clear, broad, green road behind them.

And then the horses canter up the course, and come back again with a rush of colours and straining necks amid what is almost, for so large a multitude, complete silence. Eng-

¹Wilhelm Miller. "What England Can Teach Us About Gardening" (1913).

lishmen do not make themselves heard as does a racing crowd in America. The most interesting effect in the race to one who is looking up the track, and who is not interested in the finish, is what seems to be a second race, as the crowd breaks in after the last of the horses and sweeps down the track, making it appear shortened behind as the horses move forward.

YORKSHIRE.—The largest county in England, the shire which according to the native boast “contains more acres than there are letters in the Bible,” has ever held an important place in the history of the country. Its agriculture can be traced back to the neolithic age. In the breeding of sheep, cattle, and horses, Yorkshire has long been famous. Its horses especially, from the fleetest race-horse to the mighty shire horse, are the Yorkshireman’s pride.

The foundation stone of the great modern fabric of industry, enterprise, and wealth which has been reared in Yorkshire was undoubtedly the application of steam power to the manufactures of the county. Some idea of the remarkable development of the great Yorkshire towns during the nineteenth century may be gained from statistics. The population of Leeds in 1801 was 53,612; in 1901, 428,968. In the same period Sheffield increased from 45,755 to 380,793, Hull from about 30,000 to 240,259. Between 1831 and 1901 the population of Bradford increased from 43,527 to 279,767. But most marvellous of all is Middlesbrough, a town whose entire population was housed under one roof in 1820 and now includes 60 miles of streets and has a population of 104,767.

Perhaps the most characteristic of the Yorkshire industries is that which gives employment to the great bulk of the crowded populations of the West Riding, and may be classed under one comprehensive term—the making of clothes. All the great towns of the West Riding are engaged in the spinning and manufacturing of silk, linen, cotton, and wool. Woollen goods and worsted goods are the chief objects of manufacture, and have their own particular homes and centres. When a Yorkshireman speaks of ‘Leeds goods’ he means all kinds of goods of the woollen industry; when he speaks of “Bradford,” he means worsted goods. All the other towns and districts have some specialty—the towns of the Spen Valley, Batley, Dewsbury, Cleckheaton, and their smaller neighbours produce clothing from reworked material, and place it on the market under the names of Shoddy and Mungo; Wakefield turns out yarns and medium woollens and worsteds; Huddersfield worsteds and woollens of superfine quality; Halifax produces worsted yarns, a variety of ornamental fabrics, and has also a great trade in carpets. Some of the manufactories—‘mills’ as they are called in the textile-producing districts—are of vast size. . . . In the twilight of autumn and winter or in the early winter mornings their lights are seen across the hills for mile upon mile, producing an effect which—save in Lancashire—cannot be seen elsewhere in England.¹

A LEEDS MILL.—The mills of Leeds are its crowning modern interest. A visit to one of the largest flax mills is thus described:

It is in the part of Leeds called Holbeck, and is a massive building in the Egyptian style, covering an area of two acres. The work is carried on in one huge room, which a partition divides into two, and when our guide took us in the effect was electrifying. Each frame and each worker standing before it seemed a part of one immense machine which would go on in the same perfect precision and cleanliness forever—the workers silent as the grave—while the resistless chorus of whirrs seemed to fill every chink in the vast place. This

vast chamber contains no less than sixty-six skylights for the admission of air and light. A series of arches rests on cast-iron pillars, and the air and light thus obtained obviate all the stuffiness of atmosphere one associates with the idea of a mill; the women look healthy and happy, never leaving off work, but seeming to follow it with interest as well as industry. Our guide explained to us in a very lucid way the process through which the flax passes from its pristine state to the finest sewing thread, and he illustrated his explanation by taking us from frame to frame and showing us how the flax—guided by the women’s skilful fingers, and moved by the resistless force of the huge steam engine which, like some Hydra, seems omnipresent in the vast chamber—not only gradually becomes soft and fine like flour passing through different mills, but—as it also passes through chemical preparations, it goes through many grades of colour and is finally bleached to snowy whiteness.

In another huge room we found the weavers creating out of the prepared flax coarse towelling, blinds of varied stripes and patterns, every imaginable sort of linen fabric from coarse to the finest. It was very interesting to watch the manufacture of the striped goods, to see the regular dexterity needed in placing the required portions, and in all cases the flight of the little shuttle from side to side bearing the weft across and between the strands of warp. So interesting was it that, spite of the deafening noise which seemed to set all one’s nerves loose at once, we were unwilling to leave off looking.¹

THE COLLIER.—Though so small a country, Great Britain is the greatest coal-producing country in the world. Its “black diamonds” are the mainstay of its commerce and of its naval supremacy.

While enumerating the coal riches of England, the poor collier himself, driving his dismal work down under the ruins of a former world, exposed to perpetual peril from mephitic vapours and crumbling walls, dangling upon a slender rope, or crawling up shafts like interminable chimneys, upon ladders that will rot, should not be forgotten. There is stout manhood under his dirt-crusting brutality. He says he “wins” the coal. He does indeed win it. He never descends into the coal-pit but with the chances immensely augmented that he will never see another sun. It is computed that fifteen hundred lives are annually lost in England by accidents in coal mines. The most dreadful of these enemies is the “fire-damp,” whose chief ingredient is carburetted hydrogen, which, with a certain mixture of common air, becomes explosive. In mines where the ventilation is imperfect, a single act of carelessness will fill miles upon miles of subterranean chambers with a streaming blaze of fire, sometimes rising to the surface and bursting out of the shafts with the roar and violence of a volcano. And the poor miners, it is said, *will* carry their pipes, though forbidden, into the long and distant reaches of the mine—whence this continual danger. When we sit down before a genial winter fire, let us think of those bold hearts who have ‘won’ the coal for us.²

FLINT MINING EXTRAORDINARY.—That the methods of prehistoric days still survive in certain callings may be realized by visiting one of the curious flint mines on the borders of Suffolk. The neolithic miner used a red-deer’s antler for a pick. His lamp was a cup of chalk. His ladder was probably a series of rough steps cut in the sides of the pit.

A family of the name of Dyer carry on to-day exactly the same old method of mining. Their pits are of squarer shape than the neolithic ones, but otherwise similar. Their one-pronged pick retains the shape of the deer’s antler. Their light is a candle stuck in a cup of chalk. And the ladder is just a series of ledges or, as they call them, “toes”

¹J. S. Fletcher, “A Book About Yorkshire” (1908).

¹Thomas and Katherine Macquoid, “About Yorkshire” (1883).

²James M. Hoppin, “Old England” (1890).

in the wall, five feet apart and connected by footholes. The miner simply jerks his load, several hundredweight of flints, from ledge to ledge by the aid of his head, which he protects with something that neolithic man was probably without, namely, an old bowler hat. He even talks a language of his own. "Bubber-hutching on the sosh" is the term for sinking a pit on the slant, and, for all we can tell, may have a very ancient pedigree. And what becomes of the miner's output? It is sold by the 'jag'—a jag being a pile just so high that when you stand on any side you can see the bottom flint on the other—to the knappers of Brandon. Any one of these will, while you wait, break up a lump with a short round hammer into manageable pieces. Then, placing a "quarter" with his left hand on the leather pad that covers his knee, he will, with an oblong hammer, strike off flake after flake, perhaps 1,500 in a morning; and finally will work these up into sharp-edged squares to serve as gun-flints for the trade with native Africa. Alas! the palmy days of knapping gun-flints for the British Army will never return to Brandon. Still, there must have been trade depression in those parts at any time from the bronze age up to the times of Brown Bess; for the strike-a-lights, still to be got at a penny each, can have barely kept the wolf from the door.

Thus there are things in old England that are older even than some of our friends wot. In that one county of Suffolk, for instance, the good flint—so rich in colour as it is, and so responsive to the hammer, at any rate, if you get down to the lower layers or "sases," for instance, the floorstone, or the black smooth stone that is generally below water-level—has served the needs of all the palæolithic periods, and of the neolithic age as well, and likewise of the modern Englishmen who fought with flintlocks at Waterloo, or still more recently took out tinder-boxes with them to the war in South Africa. And what does this stand for in terms of the antiquity of man? Thousands of years? We do not know exactly; but say rather hundreds of thousands of years.¹

LONDON.—London is the wealthiest and, until it was recently outstripped by New York, the most populous city in the world. It stands in four counties—Middlesex, Surrey, Kent, and Essex. It is a province of houses, a forest of human beings. It is a cluster of manufacturing towns, a great agricultural market, the central city of commerce for the entire globe, the financial capital of the commercial world, the legal capital of England, and a great pleasure city besides. The saying was once common that "all roads lead to Rome." To-day all the waterways of the world lead to London.

The metropolis is an "ocean of bricks and mortar." Its houses, if placed end to end, would stretch across Europe and Asia. One of the ugliest cities in the world, it is at the same time one of the most beautiful. The squalor of its slums is indescribable; its river and park scenes are among the finest in Europe. London contains more Scotchmen than Edinburgh, and more Irishmen than Dublin.

The importance of London is not a local importance, like the importance of Manchester and Liverpool or Leeds and Hull. London became the capital of England, because, among the great cities of England, it was at once the greatest and, in a certain sense, the most central; perhaps we may add that London earned its place by gallant resistance to the Scandinavian invader. But the modern importance of London is wholly that of a capital, not that of a local city. The importance of Liverpool and Manchester is the importance of Liverpool and Manchester in themselves; the importance of London is not the importance of London in itself; it is the importance of the place which is the seat of the common government of the whole land, the centre and meeting-place of people from every part of the whole land.

In that vast range of buildings which is popularly called "London" and vulgarly called the "metropolis," there is, unless haply within that ancient and illustrious city round which that range of buildings has grown, no real local love for the place itself. People who cannot live save in London, who despise everything out of London, who unconsciously fancy that London is the whole world, have not the same local patriotism for London which a man of one of our great towns has for his own town. It is not London as London, it is the capital of England and of the British dominions, which your man who cannot live out of London really cherishes.¹

LONDON RAILWAY STATIONS.—The railways of Britain all converge on London, and there is no place too remote to be, more or less, in direct communication with the capital. No less than eleven great railway systems have their termini in London, with magnificent stations and enormous freight yards.

In all there are 251 railway-stations and twenty-two railway companies which serve London, and yet it is curious to note that not one station is called London. Of the vast traffic carried on by these lines, and of the perfect network of lines which they have made, it is almost needless to speak, for they are known to every Londoner. The special features of the London railway system are the luxurious travelling to the north or to Paris and abroad; the daily runs to Brighton and other seaside resorts, where London merchants have their homes. . . . The various excursions to the sea and other country places; the consignments of food, from the daily early morning milk in millions of gallons to the occasional tons of water-cress, at Waterloo Station, up from Hampshire, and live turtles for aldermanic banquets; the constant daily influx of business men and women in the morning, and their return in the evening—all the curiosities of travelling, in fact, make the London railway-stations marvellous indications of London life.²

EDINBURGH.—Edinburgh, the capital of Scotland, is one of the most beautiful cities in the world. It is picturesquely situated on three eminences which run in a direction from east to west, and is surrounded by lofty hills except on the north side where the ground slopes gently toward the Firth of Forth.

Meditative people will find a charm in a certain consonancy between the aspect of the city and its old and stirring history. Few places, if any, offer a more barbaric display of contrasts to the eye. In the very midst stands one of the most satisfactory crags in nature—a Bass Rock upon dry land, rooted in a garden, shaken by passing trains, carrying a crown of battlements and turrets, and describing its warlike shadow over the liveliest and brightest thoroughfare of the new town. From their smoky beehives, ten stories high, the unwashed look down upon the open squares and gardens of the wealthy; and gay people sunning themselves along Princes Street, with its mile of commercial palaces all beflagged upon some great occasion, see, across a garden valley set with statues, the washings of the old town flutter in the breeze at its high windows. And then, upon all sides, what a clashing of architecture! In this one valley, where the life of the town goes most busily forward, there may be seen, shown one above and behind another by the accidents of the ground, buildings in almost every style upon the globe. Egyptian and Greek temples, Venetian palaces and Gothic spires, are huddled one over another in a most admired disorder; while, above all, the brute mass of the Castle and the summit of Arthur's Seat look down upon these imitations with a becoming dignity, as the works of Nature may look down upon the monuments of Art.³

¹Edward A. Freeman, "English Towns and Districts" (1883).

²G. Laurence Gomme, "London in the Reign of Victoria" (1898).

³Robert Louis Stevenson, "An Inland Voyage Travel with a Donkey" (1897).

¹R. R. Marett, "Anthropology" (1911).

GLASGOW AND THE CLYDE.—“Glasgow made the Clyde and the Clyde made Glasgow.” The epigram, though not wholly true, will serve to indicate the transformation that has taken place. A century and a half ago Glasgow seemed as liable to become a seaport as Stirling or Dumfries. Vessels could not approach within fourteen miles, and discharged their cargoes into flat-bottomed boats which took them to Glasgow. To-day the Clyde is a deep canalized river, bearing from the building yards in the upper reaches the world's greatest liners and battleships.

Glasgow is the maker of ships, and her sons are proud of their seemly product. The Clyde builder may pride himself, too, on his achievement. Following no man, he hewed out a path for himself; borrowed no capital, but at his own door dug coal and iron and wrought up these into that modern wonder, the steamship. . . . Now and then, it is true, he had the wit to use the ideas of other men, to weld their inventions to his own purposes and to profit by their errors. But take him for all in all, he is the figure which dominates modern shipbuilding, the inspirer and pioneer to whom all other builders must bow, and without whom the glorious company of ships had shrunken to a half. The teachers of youth are very right; of more moment to Glasgow than her other industries, her college, her cathedral, is the building of her ships. . . .

It is the distinction of the Clyde shipyards that they can build any kind of vessel from a trawler to a battleship. The builders have the skill and experience, and the yards have the appliances which are required for any type of war vessel, trading vessel, or pleasure craft. Elsewhere you may find—but not often—that in a given year more ships of a certain class were built than on the Clyde. Belfast and Stettin, for instance, are at the moment undoubtedly ahead of the Clyde in building great passenger steamers; but it is only here that you see every kind and manner of ship on the stocks.¹

“It is doubtful,” says John Burroughs, “if such a scene can be witnessed anywhere else in the world—an enormous collection of machinery, commerce, and building, in the midst of the quiet and simple life of inland farm lands. You could leap from the deck of a half-finished ocean steamer into a field of waving wheat or broad beans.

“These vast shipyards are set down here upon the banks of the Clyde so as to interfere as little as possible with the scene. One would say the vessels had come up out of the water like seals to sun themselves here on the grassy bank.

“Of the factories and foundries that put the iron in shape, you get no hint; here the ships rise as if they sprouted from the soil, without waste or litter, but with an unceasing din. They stand as thickly as a row of cattle, almost touching each other, and in all stages of progress. Now and then a stall will be vacant, the ship having just been launched; others will stand with flags flying and timbers greased or soaped, ready to take to the water at the word. Two such, both large ocean steamers, waited for us to pass.

“We looked back, saw the last block or wedge knocked away from one of them, and the monster ship sauntered down to the water, and glided into the current in the most gentle matter-of-fact sort of way. I wondered at her slow pace and the grace with which she took to the water. The vessels are launched up and down the stream, owing to the narrowness of the channel. But to see such a brood of ships, the largest in the world, hatched upon the banks of such a quiet little river, amid such peaceful country scenes, is a new experience. This, then, is Britain; a little island, with little lakes, little rivers, quiet fields, but mighty interests and power that reach round the world.”²

HIGHLAND DRESS.—The highland costume, in which every Highlander loves to disport himself, is modern in many of its features, and especially so in the great variety of tartans

or checks that have been invented, and of which each clan now appears to claim one.

There was a time when Stewart or Murray looked on the plaid as badge of a savage foeman; there would be a time when the imported Highlanders grew as proud of kilt and bagpipes as if these had come down to them straight from Adam. All over the world have gone those badges of a race that gave them to its conquerors in exchange for its proudest blood. The cult of the tartan, revived in our own age by romantic literature and royal patronage, is an old story. One of the early emigrants to the Southern States of America is said to have rigged out all his negroes in kilts and such-like, teaching them also to speak Gaelic and to pipe and reel among cotton fields and cane swamps. But when one of those blackamoor retainers, liveried in a kilt, was sent to meet a practically-minded countryman landing from Scotland, the effect of so transmogrified a figure proved appalling. “Hae ye been long oot?” stammered the newcomer, and took his passage back by the next ship.

Away from Scotland, all true Scots carry over the world an outfit of which the colours, the trimmings, and the gew-gaws come from the Highlands, while the hard-wearing qualities of the stuff are rather of Lowland manufacture.¹

It has appeared to some surprising that the Highlanders should be able, from the scanty materials which their country afforded, to produce such brilliancy of colouring. In those days, good housewives distinguished themselves not only by the superior quality of cloth they produced—for all was home-made—but also by the brightness and variety of their colours. From the descendants of one thus distinguished I had the whole secret; and a simple one it was, both as to the process and material of dyeing.

Black was produced from *aurum*; green and yellow from heather, the green being first dyed blue with indigo. From “white crottle,” a species of lichen, a beautiful crimson was produced. The “crottle” or lichen producing this colour had to be kept in soak for at least a twelve-month before use. A more common red was produced from madder; brown from “rough crottle,” another species of lichen: the fixing matter for all these colours being of the most primitive nature.²

A WHIFF OF IRELAND.—“The first whiff we got of nature on the east side of the Atlantic,” writes John Burroughs, “was the peaty breath of the peasant chimneys of Ireland while we were yet many miles at sea. What a homelike fireside smell it was; it seemed to remind me of a home long forgotten. This odour of the Old World, wafted to us on our approach from the New, savours of the soil. I know no other fuel that yields so agreeable a perfume.”³

AN IRISH BOG.—“We all know what a bog is—when we get into one; but if asked to define it, we should perhaps differ. The tourist would describe it as a great eyesore; the sportsman, as a capital place for wild fowl; the peasant, as a useful place for supplying fuel; the engineer, as a thing which must be got round, or over, or rid of, if possible.

None of these answers would give much idea of the real nature of a bog. In England bogs are few and far between; but nobody who has travelled in Ireland can forget the desolate flats and surfaces that extend for so many miles inland—a perfect sea of black peat, without a single shrub or mound or any token of life, save here and there a cabin, almost more dull and sad than the bog itself. . . .

Bog consists chiefly of a kind of moss known as *sphagnum*, together with many sorts of grass, fern, and heath, which, under pressure, becomes peat. It is easy to see how the growth of a flat bog has arisen. A pool is formed, more or less stagnant, round the borders of which grow water plants, in course of time filling up the surface, and then the deeper parts, by the mud around their roots. This mud is

¹James Hamilton Muir, “Glasgow in 1901” (1901).

²John Burroughs, “Fresh Fields” (1881).

¹A. R. Hope Moncrieff, “The Heart of Scotland” (1909).

²Elizabeth Taylor, “The Braemar Highlands” (1896).

³John Burroughs, “Fresh Fields” (1881).

just the place for sphagnum, which flourishes, pushing out new plants while the lower stages become rotten. Sometimes the pulpy mass fills to overflowing, as in King's County in 1821, when a bog burst its bounds and flowed down into a valley for a mile and a half, covering 150 acres with a layer of bog from six to ten feet in thickness.

Bogs are not all alike. Bog country may be divided into red, brown, black, and mountain bog. In Ireland there are about a million and a half of acres of red and black bog, and a million and a quarter of mountain bog. The red and brown are of least value for fuel; they are very wet, and contain a small amount of woody matter. Mountain bog, instead of sphagnum, contains gray moss, which is supplied with moisture by the damp air and clouds of the mountains.

When the peat is cut the whole population goes off to the bog . . . the men cut the peat with long spades, the women stack it in heaps to dry. The heat-giving power of turf is about half that of coal.¹

IRELAND FIFTY YEARS AGO.—Glancing at the condition of Ireland fifty years ago, an Irish writer² says:

At that time almost the whole agricultural population were in the position of tenants-at-will, with no security either against increased rents or arbitrary eviction. The housing of the rural population, and especially of the agricultural labourers, was wretched in the extreme. Local taxation and administration were wholly in the hands of Grand Juries, bodies appointed by the Crown from among the country gentlemen in each district. Irish Roman Catholics were without any system of University education comparable to that which Protestants had enjoyed for three hundred years in the University of Dublin. A Church which, whatever its historic claims may have been, numbered only about 12 per cent of the population was established by law and supported by tithes levied on the whole country. Technical education was inaccessible to the great bulk of the nation; and in no department of public education, of any grade or by whomsoever administered, was any attention paid to Irish history, the Irish language, Irish literature, or any subject which might lead young Irishmen to better knowledge and understanding of the special problems of their country and its special claims to the love and respect of its children.

That was the Ireland of fifty years ago. It is an Ireland which at the present day lives only on the lips of anti-British orators and journalists. It is an Ireland as dead as the France of Louis XIV. Of the abuses and disabilities just recounted not one survives to-day.

LAND REFORM.—Ireland, owing to the wars and confiscations of the seventeenth century, had come to have a land-owning aristocracy mainly of English descent with a Celtic peasantry holding their farms as yearly tenants. The object of British land-legislation has been to expropriate the landlords so far as their tenanted land is concerned, and to establish the Irish peasant as absolute owner of the land he tills.

The Irish tenant is now subject only to rents fixed by law; he can at any time sell the interest in his farm, which he has, therefore, a direct interest in improving; he is also assisted by a great scheme of land-purchase to become owner of his land on paying the price by terminable instalments, which are usually some 20 per cent. less than the amount he formerly paid as rent. Under this scheme about two-thirds of the Irish tenantry have already become owners of their farms, while the remainder enjoy a tenure which is almost as easy and secure as ownership itself. It is not surprising then, that a German economist who has made a special study of this subject should declare that "the Irish tenants have had conditions assured to them more favourable than any other tenantry in the world enjoy" adding the dry comment that in Ireland the "magic of property" appears to consist in the fact that it is cheaper to acquire

it than not.¹ That magic has been worked for Ireland by the British Legislature and by British credit. . . . The State is now pledged to about £130,000,000 for the furtherance of this scheme, the instalments and sinking fund to the amount of about £5,000,000 a year being paid with exemplary regularity by the farmers who have taken advantage of it.²

AID FOR WESTERN IRELAND.—In the more backward regions of western Ireland it has been felt that the above measures are not enough, and a special agency known as the Congested Districts Board has been constituted with wide powers to help the Western farmer, and not only the farmer, but the fisherman, the weaver, or any one pursuing a productive occupation there, to make the most of his resources and to develop his industry in the best possible way. A system of light railways which now covers these remote districts has given valuable facilities for the marketing of fish and every kind of produce. The various Boards and other executive agencies consist almost entirely of Irishmen.

IRISH AGRICULTURAL LABOURER.—There is a vast difference between the present lot of the Irish agricultural labourer and his condition in 1883, when reform in this department was first taken in hand. Cottages can now be provided by the Rural District Councils and let at nominal rents. Nearly £9,000,000 sterling have been voted for this purpose at low interest. A recent observer writes:

The Irish agricultural labourer can now obtain a cottage with three rooms, a piggery, and garden allotment of an acre or half an acre, and for this he is charged a rent of one to two shillings a week. . . . These cottages by the wayside give a hopeful aspect to the country . . . flowers are before the doors of the new cottages and creepers upon the walls. The labourer can keep pigs, poultry, and a goat, and grow his potatoes and vegetables in his garden allotment.³

PRESENT CONDITION OF IRELAND.—The internal condition of Ireland already shows a marked response to the altered state of things. It is visible, as many American travellers have noticed, in the face of the country, and is proved by official records.

Emigration has declined to its lowest point; education has spread amongst the people. Irish emigrants, when they do leave their own shores, take higher positions than ever before. A population of some 4,000,000 largely composed of small farmers, has lent £47,000,000 sterling to the Government; and, what is still more significant, the deposits in Post Office Savings Banks have risen from £6,000,000 in 1896 to over £13,000,000 the year before the war. . . .

Irish agriculture, partly owing to climatic conditions, and partly to the fact that Ireland has a monopoly of the export of live cattle to England, had developed hitherto rather in the direction of cattle-raising than of tillage; and cattle have increased since 1851 from 3,000,000 to over 5,000,000 head, and sheep from 2,000,000 to 3,600,000. Poultry have nearly quadrupled in the same period. The gross railway receipts—another significant symptom—were £2,750,000 in 1886. In 1915 they had risen to £4,831,000. The coöperative agricultural associations, in which Ireland has shown the way to the English-speaking world, now number about 1,000, and do a trade of well over £5,000,000 a year. The thousands of labourers' cottages which have sprung up, each with its plot of land, have been to the Irish labourers what the Land Acts have been to the farmer—they have completely transformed his economic status in the country.⁴

¹Prof. M. Bonn, of Munich University. "Modern Ireland and Her Agrarian Problem," translated from *Die irische Agrarfrage*.

²T. W. Rolleston, "Ireland and Poland—A Comparison" (1917).

³Padraic Colum, "My Irish Year" (1909).

⁴T. W. Rolleston, "Ireland and Poland—A Comparison" (1917).

¹G. P. Bevan.

²T. W. Rolleston, "Ireland and Poland—A Comparison" (1917).

SYNOPSIS OF THE UNITED KINGDOM

(See Map, p. 33)

The UNITED KINGDOM OF GREAT BRITAIN AND IRELAND consists of the kingdom of England, the principality of Wales, the kingdom of Scotland, and the kingdom of Ireland.

The crowns of England and Scotland were united in 1603; the parliaments in 1707. The parliaments of Ireland and Great Britain were united January 1, 1801, when the Legislative Union went into effect.

The island of Great Britain consists of England, Wales, and Scotland; it is 600 miles long and has an area of nearly 90,000 square miles. Great Britain is the largest island in Europe.

Ireland has an area of 32,360 square miles, and is about one-third the size of Great Britain. The two islands are separated by the Irish Sea.

Besides the two largest islands, the British Isles consist of about 500 small islands. The British Isles are really outstanding parts of a submarine plateau, which is a continuation of the European continent. At some remote time, the British Isles formed part of the Continent. The North Sea on the east of Great Britain is so shallow that if St. Paul's Cathedral, which is 370 feet high, was set down in the middle of it, nearly half of the edifice would stand clear out of the water.

BOUNDARIES.—The United Kingdom is bounded on the east by the North Sea; on the southeast by the Strait of Dover (21 miles wide), separating England from France; on the south by the English Channel; and on the southwest, west, and north by the Atlantic.

Ireland is separated from Great Britain by St. George's Channel, the Irish Sea, and the North Channel (13 miles wide).

COAST LINE.—The coast, especially on the west, is much indented. The coast line of Scotland is so irregular that its length is about 2,500 miles, or 500 miles more than that of England, though the country itself is so much smaller. Ireland is more regular in form than Scotland, and its coast line is about the same as that of England. The British Isles contain many good harbours.

MOUNTAINS.—The mountains of Great Britain lie mostly in the west and north. In England the *Pennine Range* runs from the centre almost to the *Cheviots* in the north, the latter forming a natural boundary between England and Scotland. West of the Pennines is a circular range of hills in Cumberland with the highest point in England, *Scafell* (3,210 feet).

Wales is principally highlands, the *Cambrian Mountains* running from the southwest to northeast, their highest points being *Snowdon* (3,570 feet), and *Plynlimon* (2,469 feet); in South Wales are the *Black Mountains* (*Brecknock Beacon*, 2,910 feet).

Scotland contains two groups of highlands in the north and centre, the *Northern Highlands* and the *Grampians*. The latter provide in *Ben Nevis* (4,406 feet) and *Ben Muich Dhui* (4,296 feet) the highest points in Scotland and the United Kingdom. Between the Grampians and the Cheviots are the lowlands of Scotland, in which its capital (Edinburgh) and largest city (Glasgow) are situated.

Ireland contains many isolated hills around its coasts, with a great plain in the centre from 50 to 350 feet above sea-level. The highest points in Ireland are *Carrantuohill* (3,414 feet) and *Beenkeragh* (3,314 feet), in the *Macgillicuddy Reeks* of Kerry; *Galtymore* (3,015 feet); and *Mulree* (2,688 feet), in Mayo.

RIVERS.—The rivers of England and Scotland, owing to the general elevation of the west and the low-lying plains of the east, flow mainly into the North Sea. The principal rivers of England are the *Thames* (210 miles), which flows through Oxford, Windsor, and London; the *Great Ouse* (160 miles); the *Trent* (170 miles), which flows through Burton and Nottingham to form the *Humber* upon which is situated Hull; the *Tyne* on which stands Newcastle; and in the west of England the *Severn* (180 miles) and the *Mersey* (70 miles). The Mersey is important as the waterway of Liverpool, and is connected with Manchester by a ship canal.

The principal rivers of Scotland are the *Clyde* (90 miles), flowing west by Glasgow to the Firth of Clyde; the *Forth* (60 miles); the *Tweed* (96 miles), which forms a boundary of England and Scotland at Berwick; the *Tay* (120 miles); and the *Dee* (70 miles), on which is situated Aberdeen.

In Ireland are the *Shannon* (225 miles) the largest river in the British Isles; the *Erne*, *Foyle*, *Bann*, *Liffey*, on which stands Dublin, the *Boyne*, near which the Battle of the Boyne was fought in 1690, the *Slaney*, *Barrow*, *Blackwater*, and the *Lee*.

LAKES.—The lake district of England, mainly in Cumberland but partly in Westmorland and Lancashire, contains a circle of picturesque lakes, of which *Windermere* (10 miles long), *Ullswater*, and *Derwentwater* are the largest. Wales has but one large lake in *Bala Water* (4 miles long). Scotland, particularly in the Highlands, abounds in lakes, of which the largest is *Loch Lomond* (24 miles), the largest in Britain. Ireland contains the largest lake in the United Kingdom in *Lough Neagh* (area 183 square miles), and is interspersed with lakes in the north and west. In the highlands of Kerry are the famous lakes of *Killarney*.

CLIMATE.—The climate of the British Isles is influenced by the prevailing southwest winds and by the existence of the Gulf Stream. The prevailing winds cause a plentiful rainfall in the western region, the average fall being highest in Ireland. The Gulf Stream from the Gulf of Mexico divides at the southwest extremity of Ireland and at Land's End (Cornwall), the former current skirting the north of Scotland, and reuniting with the southern arm in the North Sea. The climate of the British Isles is thus warm and more equable than that of other lands between the same parallels, and its harbours are free from ice all the year round.

London has a mean temperature in January of 39.3° F., and in July 62.7° F. Dublin has 41.2° and 57.2° F., Edinburgh 37.7° and 57.2° F. Falmouth, on the south coast, has a mean temperature of 44.6° F. in January, and 59.4° F. in July. See *Climate Map of Europe*, pp. 24, 25.

ENGLAND AND WALES

(See Map, p. 34)

NATURAL PRODUCTIONS.—(1) AGRICULTURE. "In no other country in the world," says Dr. Carl Zehden, "is the soil so thoroughly and so generally utilized; the whole land looks like a well-cultivated garden. And in no other country is the productiveness of the land so stimulated by scientific means, such as drainage, irrigation, the use of artificial fertilizers and agricultural machinery. The chief reasons for this advanced state of agriculture are to be looked for in the smallness of the farms and the high prices commanded by farm produce." In England the area under cultivation is estimated at three-quarters of the whole; in Wales at more than one-half. The grain crops are grown chiefly in the eastern and southeastern parts of England. The chief crops are *wheat*, *oats*, *barley*, *beans*, *peas*, *potatoes*, *turnips*, *hops* (in Kent, Surrey, Worcester, and Hereford), *apples* and *pears* (chiefly in Hereford, Worcester, and Devon), and *garden produce* (near London and the large towns).

(2) CATTLE AND SHEEP FARMING.—Of recent years more attention has been given to pasture than to arable cultivation. Dairy farming is carried on in Cheshire and Staffordshire, and in Buckingham and other south central counties. Sheep farming is carried on in Lincolnshire, Nottingham, Leicester, Northampton, Rutland, Yorkshire, and in the south of England.

(3) FISHERIES.—The fisheries are very important. Fleets of fishing vessels trawl all the year round on the *Dogger Bank* and over the North Sea, sending in the catch daily by special fast steamers to various ports especially London, where *Billingsgate* is the largest fish-market in the world. Soles, plaice, and other flat fish, and herrings, are caught on the Dogger Bank. Pilchards and mackerel are taken off the coast of Cornwall, and oysters are cultivated in the Wash, Thames, and other shallow estuaries.

(4) MINERALS.—England and Wales are rich in minerals. The chief minerals are coal and iron—the main sources of the wealth of the country—lead, copper, zinc, tin, salt, marble, slate, and building-stone.

The principal coal fields are: (1) the Northumberland and Durham coal field (chief centre, Newcastle-upon-Tyne); (2) the Yorkshire and Derbyshire coal field, between Leeds and Derby; (3) the Lancashire coal field, between the Ribble and the Mersey; (4) the North Staffordshire coal field, in "The Potteries" district; (5) the South Staffordshire coal field, in the Wolverhampton iron district; (6) the Bristol coal field; and (7) the South Wales coal field. The coal fields have an area of more than 12,000 square miles—twice the size of Yorkshire.

MANUFACTURES.—The principal manufactures, with their chief centres, are: *Carpets* (Axminster, Halifax, and Kidderminster); *chemicals* (Cheshire, Lancashire, and Tyneside); *cottons* (South Lancashire in Manchester, Blackburn, Preston, Oldham, Bolton, etc.); *cutlery, tools, etc.* (Sheffield and the Birmingham districts); *cycles and motor cars* (Coventry, Birmingham, Wolverhampton); *earthenware* ("The Potteries": Burslem, Stoke-on-Trent, etc., Worcester, Derby, and London); *glass* (St. Helens, Warrington, etc.); *hardware, machinery, etc.* (Birmingham, Dudley, Wolverhampton, Newcastle, Leeds, and Lincoln); *lace and hosiery* (Nottingham, Derby, Leicester, and Worcester, and to some extent the southwest counties); *leather and boots* (Northampton, Stafford, Kettering, Norwich, and Leicester); *silk* (Manchester, Macclesfield, Derby, and Spitalfields in London); *straw plaiting* (Bedford, Hertford, and Buckingham); *watches and jewellery* (Birmingham, London, Coventry, and Manchester); and *woollens* (West Riding of Yorkshire, West of England, Wales, etc.).

SHIPBUILDING.—The chief shipbuilding centres are: the Tyneside, Durham ports, Barrow-in-Furness, Birkenhead, Middlesborough, and London.

COUNTIES, TOWNS, AND INDUSTRIES OF ENGLAND AND WALES

(See Map, p. 34.)

COUNTIES AND INDUSTRIES	CHIEF TOWNS AND THEIR INDUSTRIES
Six Northern Counties	
NORTHUMBERLAND. Mining and metal working.	Newcastle-upon-Tyne* (coal, iron, shipbuilding, chemicals, glass), Berwick-upon-Tweed (salmon fishing), Hexham (hats, gloves), North Shields (coal, shipping).
CUMBERLAND. Agriculture; coal, iron, and lead mining.	Carlisle† (railway centre), Whitehaven and Maryport (coal), Workington (coal, steel works), Penrith (agriculture), Keswick.
WESTMORLAND. Agriculture.	Appleby, Kendal (woollen).
DURHAM. Coal and iron mining, ironworks, cattle breeding.	Durham†, Sunderland (shipbuilding, coal), Gateshead (iron, chemicals), Jarrow (chemicals, shipbuilding), South Shields (shipping, coal), Darlington and Stockton (iron), Hartlepool (exports coal).
YORKSHIRE. Agriculture, wool, linen, cutlery, coal and iron mining, ironworks.	York†, Doncaster, Knaresborough and Northallerton (farming centres), Middlesborough (steel, iron, salt), Scarborough and Whitby (watering-places), Hull (chief port of the county); Leeds, Bradford, Halifax, Huddersfield, Dewsbury, and Keighley (woollen); Wakefield† (corn, cattle), Sheffield† (cutlery, steel), Rotherham (steel, iron, coal), Barnsley (linen, steel, iron, coal), Ripon†, Richmond.
LANCASHIRE. Cotton, coal mining, ironworks.	Lancaster (cotton), Liverpool† (shipping, chief port for American trade; sugar refining, cotton, engine and machine works), Manchester† (cotton, engine and machine works), Salford, Bolton, Blackburn, Preston, Bury, Wigan, Oldham (cotton); Rochdale (cotton, flannel), St. Helen's (glass, chemicals) Widnes (soap, soda, chemicals), Barrow-in-Furness (steel, jute, shipping), Warrington (wire, iron, soap), Southport, Blackpool.

COUNTIES, TOWNS, AND INDUSTRIES OF ENGLAND AND WALES—Continued

COUNTIES AND INDUSTRIES	CHIEF TOWNS AND THEIR INDUSTRIES
<i>Six Western Counties</i>	
CHESHIRE. Cheese-making, salt mining and refining.	<i>Chester</i> †, Birkenhead (shipbuilding), Stockport (cotton), Northwich (salt), Macclesfield (silk), Crewe (engines, railway centre), Stalybridge (cotton), Runcorn (iron, chemicals).
SHROPSHIRE. Agriculture, coal mining, ironworks, pottery.	<i>Shrewsbury</i> (flannel), Wellington (coal), Bridgenorth (carpets), Oswestry (woollen).
HEREFORDSHIRE. Hops, apples; cattle breeding.	<i>Hereford</i> †, Leominster.
MONMOUTHSHIRE. Agriculture, coal and iron mining.	<i>Monmouth</i> , Newport (port for minerals), Tredegar and Pontypool (iron, coal).
GLOUCESTERSHIRE. Agriculture, coal mining, stone quarries.	<i>Gloucester</i> † (timber), Bristol† (glass, sugar, tobacco, coal), Cheltenham (mineral springs), Stroud (woollen).
SOMERSET. Dairy farms, coal mining.	<i>Taunton</i> , Bath (mineral springs), Bridgewater (pottery), Frome (cloth, ale), Yeovil (gloves), Wells†.
<i>Five Eastern Counties</i>	
LINCOLNSHIRE. Agriculture, iron mining.	<i>Lincoln</i> † (agricultural machinery), Grimsby and Boston (fishing, timber), Grantham (corn), Gainsborough (machinery).
NORFOLK. Agriculture, fisheries.	<i>Norwich</i> † (boots and shoes, crape, shawls), Yarmouth (fish curing).
SUFFOLK. Agriculture.	<i>Ipswich</i> † (agricultural implements), Lowestoft (herring fishery), Bury St. Edmunds.
ESSEX. Agriculture.	<i>Chelmsford</i> † (agricultural machinery), Harwich (port for Holland and Belgium), Shoeburyness (artillery station), West Ham (chemicals, soap), Colchester.
CAMBRIDGEHIRE. Agriculture.	<i>Cambridge</i> , Ely†, Wisbeach (corn).
<i>Nine Southern Counties</i>	
KENT. Agriculture, hops, fruit, lime, and bricks.	<i>Maidstone</i> (hop trade), Chatham (naval arsenal), Sheerness (naval arsenal), Woolwich (military arsenal), Greenwich (famous observatory), Dover and Folkestone (ports for traffic with France), Tunbridge Wells, Ramsgate, Margate (watering-places); Rochester†, Canterbury.†
SUSSEX. Agriculture, hops, sheep farming.	<i>Lewes</i> (corn), Brighton, Hastings, and Eastbourne (watering-places), Chichester.†
SURREY. Agriculture, manufactures.	<i>Guildford</i> , Croydon (corn), Epsom.
BERKSHIRE OF BERKS. Agriculture, nurseries.	<i>Reading</i> (nursery gardens), Windsor, Wantage.
HAMPSHIRE OF HANTS. Agriculture, hops.	<i>Winchester</i> † Portsmouth (naval arsenal), Southampton (mail steamship station), Newport, Ryde, Ventnor, Cowes (watering-places in Isle of Wight).
WILTSHIRE OF WILTS. Sheep-farming, cloth.	<i>Salisbury</i> † (corn), Swindon (railway works), Trowbridge (cloth), Devizes (corn), Marlborough.
DORSET. Dairy farms, china-clay, building stone.	<i>Dorchester</i> (cloth), Poole (china-clay), Weymouth (watering-place), Bridport (flax spinning).
DEVONSHIRE. Agriculture, copper, tin, china-clay, granite.	<i>Exeter</i> †, Plymouth (seaport), Devonport (shipbuilding), Honiton and Tiverton (lace), Tavistock (copper mining), Torquay (watering-place), Axminster (carpets), Brixham (fishing), Teignmouth, Dawlish, Exmouth, Sidmouth, Dartmouth, Ilfracombe.
CORNWALL. Copper, tin, and lead mining, china-clay, granite.	<i>Bodmin</i> (worsted), Truro† (copper mining), Penzance, Falmouth, St. Ives and Padstow (fisheries); Launceston (mining).
<i>Fourteen Midland Counties</i>	
NOTTINGHAMSHIRE OF NOTTS. Agriculture, lace, hosiery, silk, coal and iron mines.	<i>Nottingham</i> (lace, hosiery), Newark (linen, malt, corn), Worksop (malt, timber), Southwell.†
DERBYSHIRE. Agriculture; coal, iron, and lead mining.	<i>Derby</i> (silk), Glossop (cotton), Chesterfield (lace, cotton, silk), Matlock and Buxton (mineral springs).
STAFFORDSHIRE. Coal and iron mining, pottery, brewing.	<i>Stafford</i> (boots), Burton-upon-Trent (brewing); Wolverhampton, West Bromwich, Walsall, Wednesbury, Bilston—called the "Black Country" (iron); Hanley, Stoke, Burslem, Tunstall—called the "Potteries" (pottery); Lichfield.†
WORCESTERSHIRE. Agriculture; coal, iron, and salt mining; pottery.	<i>Worcester</i> † (porcelain), Malvern (watering-place), Dudley (coal, iron, hardware), Kidderminster (carpets), Stourbridge (glass, pottery), Droitwich (salt).
WARWICKSHIRE. Agriculture, metal trades, coal mining.	<i>Warwick</i> , Birmingham† (hardware, jewellery, pins, screws, machines, guns, cutlery, pens, etc.), Coventry (bicycles, watches, clocks, ribbons), Leamington (watering-place), Rugby, Stratford-on-Avon.
LEICESTERSHIRE. Agriculture, hosiery, boots and shoes, coal mining.	<i>Leicester</i> (hosiery, boots and shoes), Loughborough (hosiery), Ashby de la Zouche (coal).
RUTLAND. Agriculture.	<i>Oakham</i> .
NORTHAMPTONSHIRE. Agriculture, iron mining, boots and shoes.	<i>Northampton</i> (boots and shoes, iron), Kettering and Wellingborough (shoes, iron), Peterborough† (railway centre).
HUNTINGDONSHIRE. Agriculture.	<i>Huntingdon</i> .
BEDFORDSHIRE. Agriculture, straw plaiting.	<i>Bedford</i> (agricultural machinery), Luton and Dunstable (straw plaiting).
HERTFORDSHIRE OF HERTS. Agriculture, malting.	<i>Hertford</i> (malting and seed mills, lace, straw plaiting), St. Albans.†
MIDDLESEX. Market-gardens, brick-making, manufactures, trade and commerce of London.	<i>London</i> † (leather, watches, silk, clothing, boots and shoes, pottery, candles, soap, chemicals, etc.), Brentford (distilling, brewing, chemicals), Harrow, Staines, Uxbridge.
BUCKINGHAMSHIRE OF BUCKS.	<i>Buckingham</i> (lace), Aylesbury (condensed milk), Eton.
OXFORDSHIRE. Agriculture.	<i>Oxford</i> †, Banbury (cakes), Witney (blankets).
<i>Twelve Welsh Counties</i>	
FLINTSHIRE. Lead, iron, and coal mining.	<i>Mold</i> (coal and lead mining), Holywell, St. Asaph,† Rhyl.
DENEIGHSHIRE. Sheep-farming.	<i>Denbigh</i> (tanning and shoemaking), Wrexham.
CARNARVONSHIRE. Sheep-farming, slate quarrying.	<i>Carnarvon</i> , Penrhyn and Bangor† (slate quarrying), Conway.
ANGLESEA. Copper mining, agriculture.	<i>Beaumaris</i> (watering-place), Holyhead (packet station for Dublin).
MONTGOMERYSHIRE. Agriculture; lead mining, flannel.	<i>Montgomery</i> ; Welshpool and Newton (flannel weaving).
MERIONETHSHIRE. Slate and lead working; sheep farming.	<i>Dolgelly</i> (flannels and tweeds), Barmouth (watering-place).
CARDIGANSHIRE. Agriculture lead mining.	<i>Cardigan</i> Aberystwyth (watering-place).
RADNORSHIRE. Agriculture.	<i>New Radnor</i>
BRECKNOCKSHIRE. Agriculture.	<i>Brecon</i> .
GLAMORGANSHIRE. Coal mining, iron and smelting works.	<i>Cardiff</i> (shipping port for coal), Swansea (iron works, copper smelting) Merthyr Tydvil (coal, steel), Llandaff.†
CARMARTHENSHIRE. Coal mining, iron and smelting works.	<i>Carmarthen</i> (metal works). Llanelly (shipping port for coal, iron, copper).
PEMBROKESHIRE. Agriculture.	<i>Pembroke</i> St. David's.†

*The county town is given first.
†Cathedral city.

SCOTLAND

(See Map, p. 25)

NATURAL PRODUCTIONS.—Agriculture is one of the chief industries of Scotland. The crops are raised mainly in the plains and valleys of the east and south. The chief crops are *oats*, (the principal cereal on the oceanic border), *wheat* (in the Lothians, Fife, and the Merse of Berwick) *barley*, *potatoes*, and *turnips*. Potatoes and turnips are called "green crops." The average crop of roots in Scotland amounts to half that of England. *Cattle* are reared chiefly in Aberdeen, Ayr, and Wigtown; *sheep* in the Highlands and southern uplands. *Butter* and *cheese* are produced mainly in the southwest. Clydesdale and Shetland are noted for their *horses*.

MINERALS.—The most important minerals found in Scotland are: *coal* and *iron* (in the basins of the Forth and Clyde); *lead* (in the Lowther Hills and in Argyll); *granite* (chiefly in Aberdeenshire and Kirkcudbrightshire); *slate*, for roofing (in Argyllshire and Perthshire); *marble* (in Sutherland, Perth, and Lewis).

MANUFACTURES.—The principal manufactures of Scotland, with their chief centres, are: *Cotton goods* (Glasgow and Paisley); *linens* (Dundee, Montrose, Arbroath, and Forfar); *fine linens* (Dunfermline and Paisley); *woollens* (Hawick, Galashiels, Aberdeen, Kilmarnock, and Bannockburn); *thread* (Paisley); *carpets* (Kilmarnock and Dundee); *machinery* (Glasgow, Dundee, and Falkirk); *iron and steel* (Glasgow, Airdrie, Coatbridge, and Dundee); *shipbuilding* (Glasgow and other towns on the Clyde, Aberdeen, Dundee, and Leith).

CHIEF TOWNS AND INDUSTRIES OF SCOTLAND

(See Map p. 35)

TOWN	COUNTY	PRINCIPAL INDUSTRIES
<i>Highlands</i>		
ABERDEEN	Aberdeen	Granite works, shipbuilding; cotton, wool, and paper manufactures.
INVERNESS	Inverness	Shipping.
KIRKWALL	Orkney and Shetland	(Seaport.)
LERWICK	Orkney and Shetland	Whale and sea fishing.
PETERHEAD	Aberdeen	Herring fishery, granite.
STORNOWAY	Ross	Fishing.
STROMNESS	Orkney and Shetland	Shipbuilding.
THURSO	Caithness	Exports paving-stones; packet station for Stromness and Kirkwall in the Orkneys.
WICK	Caithness	Chief seat of herring fishery.
<i>Midlands</i>		
ARBRATH	Forfar	Canvas, yarn, and sailcloth manufactures; shipping.
CAMPBELTOWN	Argyll	Distilleries.
CARRON	Stirling	Ironworks.
CRIFEFF	Perth	Jam, linen and woollen manufactures.
CUPAR	Fife	Linen manufactures.
DUMBARTON	Dumbarton	Shipbuilding, iron foundries.
DUNDEE	Forfar	Shipbuilding, iron foundries; chief seat of linen and jute manufactures.
DUNFERMLINE	Fife	Linen manufactures.
FALKIRK	Stirling	Centre of iron and coal districts; noted cattle markets, called "trysts."
INVERARY	Argyll	Fishing.
MONTROSE	Forfar	Linen manufactures.
OBAN	Argyll	(Seaport.)
PERTH	Perth	(Ancient capital of Scotland). Textiles.
ROTHESAY	Bute	(Watering-place.)
STIRLING	Stirling	(Famous castle. Bannockburn is near).
STONEHAVEN	Kincardine	Herring fishery.
<i>Lowlands</i>		
AIRDRIE	Lanark	Coal and iron.
AYR	Ayr	Exports coal and iron.
DUMFRIES	Dumfries	Noted cattle market.
DUNBAR	Haddington	Herring fishery.
EDINBURGH	Edinburgh	(Capital of Scotland). Brewing; large book trade.
GALASHIELS	Selkirk	Woollen manufactures.
GLASGOW	Lanark	Shipbuilding, ironworks; textile, machinery, chemical, pottery, and glass manufactures.
GREENOCK	Renfrew	Shipbuilding, sugar refining.
HAMILTON	Lanark	Lace and muslin manufactures.
HAWICK	Roxburgh	Woollen manufactures.
ROXBURGH	Roxburgh	Woollen manufactures.
SELKIRK	Ayr	Ironworks, engineering; carpet and woollen manufactures.
LEITH	Edinburgh	Large shipping trade with Baltic and North Sea ports; shipbuilding.
PAISLEY	Renfrew	Thread, shawl, muslin, and linen manufactures.
PEEBLES	Peebles	Woollen manufactures.
PRESTONPANS	Haddington	Brewing.
RENFREW	Renfrew	Muslin and silk manufactures.
SELKIRK	Selkirk	Woollen manufactures.

IRELAND

(See Map, p. 36)

NATURAL PRODUCTIONS.—One half of Ireland is given up to pasture for the country is better adapted for grazing and dairy-farming than for tillage. *Potatoes* are widely cultivated, and form the most valuable crop. *Oats* are grown in the east, north, and south. *Flax* and *hemp* are largely grown in Ulster for the linen manufacture. *Horses*, *cattle*, *sheep*, and *pigs* are reared for exportation. Great quantities of *butter* are shipped to England and Scotland.

There are few minerals. Some inferior coal and a little iron are found; copper and lead are found in small quantities in the south and southwest. *Peat* is the chief fuel.

MANUFACTURES.—The chief manufacture is *linen*, which is mostly confined to Ulster. Shipbuilding is carried on at Belfast and Cork.

CHIEF TOWNS AND INDUSTRIES OF IRELAND

(See Map, p. 36)

TOWN	COUNTY	PRINCIPAL INDUSTRIES
ARMAGH	Armagh, U.*	(Ecclesiastical metropolis of Ireland.)
BELFAST	Antrim, U.	Linen manufactures, iron foundries, engineering, shipbuilding, large export trade.
CORK	Cork, M.	Shipbuilding, distilleries; large export trade in cattle and butter.
DROGHEDA	Louth, L.	Linen and cotton manufactures; exports provisions.
DUBLIN	Dublin, L.	(Capital of Ireland.) Whisky distilling, porter brewing, manufacture of poplins; large export trade.
DUNDALK	Louth, L.	Fisheries; grain and cattle exports.
GALWAY	Galway, C.	Fisheries; exports black marble, and agricultural produce.
KILKENNY	Kilkenny, L.	Marble works.
KILLARNEY	Kerry, M.	(Noted for its beautiful scenery.)
KINGSTOWN	Dublin, L.	(Packet station for Holyhead.)
LIMERICK	Limerick, M.	Flour-mills, lace, gloves; coasting and foreign trade.
LONDONDERRY,	Londonderry, L.	Linen manufactures, coasting and general trade.
NEWRY	Down, U.	Linen and cotton manufactures.
QUEENSTOWN	Cork, M.	(Port of call for American vessels.)
TIPPERARY	Tipperary, M.	Corn and dairy produce.
WATERFORD	Waterford, M.	Exports, agricultural produce.
WEXFORD	Wexford, L.	Exports, provisions, cattle, and dairy produce.

*U. = Ulster. L. = Leinster, M. = Munster, C. = Connaught.

CHIEF PORTS IN THE UNITED KINGDOM.—(1) ENGLAND AND WALES.—London, Liverpool, Cardiff, Newcastle and Shields, Southampton, Hull, Plymouth, Newport, Grimsby, Dover, Manchester, Middlesbrough, Swansea, Sunderland, Folkestone, Bristol, and Blyth.

(2) SCOTLAND.—Glasgow, Leith, Methil, Grangemouth, Dundee, Aberdeen, and Greenock.

(3) IRELAND.—Cork, Belfast, and Dublin.

CHIEF COMMERCIAL TOWNS.—London, Liverpool, Manchester, Glasgow, Belfast, and Birmingham, are the leading commercial towns in the United Kingdom. London is the great commercial capital, not of Great Britain alone, but of the world. London does the chief trade with the Orient. Liverpool does the main American trade, and exports more British produce and manufactures than any other port.

COMMERCE.—One fifth of the entire trade of the world, and one third of the entire trade of Europe pass through English hands. The raw materials and produce of the world are imported into Great Britain, which pays for them with its manufactures.

"It is here that the great value and advantage of the English trade lies, as compared, for example, with the trade of the Dutch. The latter must procure foreign manufactures to pay for their imports, while the British themselves manufacture the raw material, and dispose of the manufactured article at a high price in the very spot whence they obtained the raw material at the lowest cost. In this way the great trading firms and the great manufacturing firms work into each other's hands, a fact which goes far to explain how English-made goods are cheap as well as solid."¹

The principal countries with which Great Britain is engaged in trade are the United States, France, and Germany, besides an extensive trade with the British colonies and other foreign countries.

(1) WITH THE UNITED STATES.—British trade with the United States is about twice as large as that with any other country. The imports from America are much greater than the exports to it. From America is obtained large quantities of foodstuffs and raw materials, especially cotton, copper, iron, and steel; also animal and mineral oils, tobacco, and wood; while to it Great Britain sends metal goods, textiles, India rubber, chemicals, drugs, dyes, wines, spirits, and a great variety of commodities.

(2) WITH FRANCE.—Wines and brandy, silken and woollen goods, and many minor foodstuffs are supplied to England; while in return France receives coal, textiles, colonial wool, and various manufactures.

(3) WITH GERMANY.—Foodstuffs, including a large quantity of beet sugar, are imported from Germany; while to it England sends wool and woollens, cotton and cotton goods, metals and machinery.

CHIEF IMPORTS.—(1) FOOD, DRINK, AND TOBACCO: Wheat, barley, oats, maize, rice, wheatmeal and flour, live animals, meat and bacon, butter, cheese, eggs, fish, fruit, lard, margarine, vegetables, wine, sugar, tobacco, coffee, tea, and other colonial produce.

(2) RAW MATERIALS: Cotton, wool, jute, skins and furs, hides, leather, metallic ores, oils, timber, paper-making materials.

(3) MANUFACTURED GOODS: Cottons, woollens, silks, machinery, automobiles, earthenware, glass, apparel, chemicals, dyes, etc.

CHIEF EXPORTS.—(1) FOOD, DRINK, AND TOBACCO: Grain and flour, meat, beer and ale, biscuits and cakes, herrings, spirits, tobacco.

(2) RAW MATERIALS: Coal, iron, tin, salt, copper, lead, wool, oilseeds, hides.

(3) MANUFACTURED GOODS: Cottons and yarn, haberdashery; woollen, linen, jute, leather, India rubber, and silk goods; apparel, machinery, hardware, cutlery, arms and ammunition, electrical goods, jewellery, railway plant; earthenware, glass, chemicals, drugs, carriages and carts, ships, paper and books.

COMMUNICATIONS.—The United Kingdom is traversed by about 1,800 miles of navigable rivers, 4,670 miles of canals, and 24,000 miles of railway. The *Manchester Ship Canal*, opened in 1894, has a total length of 36 miles, and connects Manchester with the Mersey port of Liverpool. Most of the great English railways radiate from London; and there is a close network all over the country. Of the lines which go north, the principal are the *London and Northwestern* (Euston Station to Carlisle, via Rugby, Stafford, Crewe, Wigan, Preston, and Lancaster; by the *Caledonian* it goes on to Glasgow and Edinburgh); the *Midland* (St. Pancras Station to Derby and

Carlisle; by the *Scottish Southwestern* it goes to Glasgow); and the *Great Northern* (King's Cross to York, via Peterborough, Grantham, and Doncaster; then on to Newcastle and Berwick by the *Northeastern*, and to Edinburgh and Glasgow by the *North British*).

Of the lines which go west, the most important are the *Great Western* (Paddington Station to Bristol, Exeter, Plymouth, Penzance, and to Cardiff and Milford) and the *Southwestern* (Waterloo Station to Salisbury and Exeter, and to coast towns of Portsmouth, Southampton, and Weymouth).

The most important line to the south is the *London, Brighton, and South Coast* (London Bridge and Victoria Stations).

The principal lines to the east are the *Great Eastern* (Liverpool Street Station to Cambridge and towns in the eastern counties); the *Southeastern* (Charing Cross to Dover and Folkestone); and the *London, Chatham, and Dover*, the chief line to the Continent (Holborn and Victoria Stations to Dover).

Other important lines are the *Lancashire and Yorkshire*; the *Manchester and Liverpool*; and the *Northeastern*. In Scotland there are the *North British* (Glasgow to Edinburgh and Berwick); the *Caledonian* (Edinburgh and Glasgow to Carlisle); the *Glasgow and Southwestern* (Glasgow and Kilmarnock to Carlisle); and the *Highland* (Perth to Inverness and Wick, and Dingwall to Strone).

THE IRISH RAILWAY SYSTEM radiates in all directions from Dublin; but as the population is not dense, and there are few large towns, the network is less close than in England. From Dublin run the *Dublin, Wicklow, and Wexford*, the *Great Southern and Western* (to Cork, Limerick, Killarney, and Tralee); *Midland and Great Western* (to Galway, with branches to the north and northwest); and the *Dublin and Belfast*. From Dundalk runs the *Irish Northwestern* to Londonderry; and from Belfast runs the *Belfast and Northern Counties*, through Antrim to Londonderry.

THE TELEGRAPH AND THE TELEPHONE are government monopolies. There are 265,000 miles of telegraph wires and about 2,900,000 miles of telephone wires in the United Kingdom.

GOVERNMENT.—The British constitution is mainly unwritten and customary, but its development is marked by certain fundamental laws, of which the principal are *Magna Carta* (1215), which secured annual parliaments and the equal administration of justice; the *Habeas Corpus Act* (1679), which established the liberty of the person; the *Act of Settlement* (1701), which provided for the Protestant succession to the throne; the *Act of Union with Scotland* (1707) and the *Act of Union with Ireland* (1800), which created the United Kingdom; and the *Parliament Act* (1911), which enabled the Commons to pass certain acts without the adherence of the House of Lords.

(1) THE SOVEREIGN.—The throne is hereditary in the *House of Windsor* (formerly *Saxe-Coburg-Gotha*). The monarchy is constitutional and limited. The King has a right to veto bills passed by Parliament, but in practice his veto is almost obsolete.

(2) THE LEGISLATURE.—Parliament is composed of the Sovereign and the Three Estates of the Realm, which are the Lords Spiritual, the Lords Temporal, and the Commons. The Lords Spiritual and Temporal form the *House of Lords*, consisting of 632 members. A peer may hold his seat by (1) hereditary right; (2) creation by the King; (3) official position or election. Irish peers are elected for life, and Scottish peers for the duration of Parliament. Members of the Upper House receive no remuneration.

The *House of Commons*, the Lower House, consists of 670 members, (465 for England, 30 for Wales, 72 for Scotland, and 103 for Ireland), elected by the registered male electors in county, borough, and university constituencies. Roughly speaking, about one sixth of the population are electors. The maximum duration of Parliament is five years. Members of the House of Commons receive \$2,000 per annum.

(3) IMPERIAL DOMINIONS.—British dominions beyond the seas consist of colonies, dependencies, and protectorates. These may be divided into three classes, according to the way in which they are governed:—

(1) *Responsible governments*, possessing a separate constitution; *e. g.*, Canada, Newfoundland, Australia, New Zealand, and the Union of South Africa.

(2) *Representative governments*, in which the legislature is partly elected and partly controlled by the Governor representing the crown; *e. g.*, The Bahamas, Barbados, Bermuda, British Guiana, Jamaica, Leeward Islands, Mauritius, and Malta.

(3) *Crown colonies*: (a) Where there is government by a Governor acting with an executive and a legislative council, the councils being nominated by the Crown or a Governor representing the Crown: *e. g.*, Ceylon, Falkland Islands, Fiji, Gambia, Hongkong, St. Vincent, Sierra Leone, Straits Settlements, Trinidad.

(b) Wherein both legislative and executive power are vested in the Governor alone; *e. g.*, Gibraltar, Labuan, and St. Helena.

The *Indian Empire* is administered by a Governor-General or Viceroy and a council appointed by the Crown. For legislative purposes, a partly elected and partly nominated Imperial Council exists.

Protectorates are countries which, as regards their foreign relations, are under the exclusive control of the crown; *e. g.*, British East Africa, Somaliland, Nyasaland, Uganda, Swaziland, and Nigeria.

Spheres of influence are areas wherein other Powers undertake not to attempt to acquire influence or territory by treaty or annexation.

(4) LOCAL GOVERNMENT.—Local government is carried out under the central control of Local Government Boards. The subjects which local bodies administer are, *inter alia*, the Poor Law; the laws relating to public health; the maintenance of the police; the control of the sale of intoxicating liquors; the provision of lunatic asylums. Local authorities have to administer and carry into effect the laws as to elementary and other schools. Scotland and Ireland each have an elaborate system of local government. The ruling principle has been to entrust such interests to those specially interested. In England and Wales there are elective Councils for each county (under Chairmen), for each city and county borough (under Lord Mayors or Mayors), and for urban and rural districts (under Chairmen), every parish being thus included.

¹C. Zehden, "Commercial Geography of the World" (1893).

BRITISH DOMINIONS

DOMINIONS	HOW ACQUIRED	DATE	AREA (sq. miles)	POPULATION	
<i>Europe</i>					
United Kingdom			121,090	45,500,000	
Isle of Man			230	50,000	
Channel Islands			70	97,000	
Malta and Gozo	Treaty Cession	1814	120	211,000	
Gibraltar	Treaty Cession	1713	2	20,000	
<i>Asia</i>					
Indian Empire	Con. & Treaty	1757-1897	1,900,000	315,000,000	
Ceylon	Treaty Cession	1801	25,500	4,100,000	
Straits Settlements	Treaty Cession	1785-1909	1,770	700,000	
Federated Malay States	Treaty Cession	1874-1888	27,700	1,000,000	
Other Malay States	Treaty Cession	1909	14,200	800,000	
Hongkong	Treaty Cession	1842-1906	390	440,000	
Weihaiwei	Treaty Cession	1898	300	160,000	
North Borneo	Cession	1877	31,100	204,000	
Brunei	Treaty Cession	1888	4,000	30,000	
Sarawak	Protectorate	1888	50,000	650,000	
Cyprus	Treaty Cession*	1878	3,600	275,000	
<i>Africa</i>					
Union of South Africa:					
Cape Province	Treaty Cession	1814	277,000	5,100,000	
Natal	Annexation	1843	35,400		
Transvaal	Annexation	1900	110,400		
Orange Free State	Annexation	1900	50,400		
Basutoland	Annexation	1868	10,300	350,000	
Bechuanaland	Annexation	1895	275,000	126,000	
Swaziland	Annexation	1903	6,678	100,000	
Rhodesia	Annexation	1889	450,000	1,750,000	
<i>British West Africa:</i>					
Gambia	Treaty Cession	1807	4,000	146,000	
Gold Coast Colony	Treaty Cession	1672	80,000	1,400,000	
Sierra Leone	Treaty Cession	1787	34,000	1,100,000	
Nigeria	Treaty Cession	1891	333,700	17,000,000	
Somaliland	Treaty Cession	1884	68,000	300,000	
East Africa Protectorate	Treaty Cession	1888	182,000	4,000,000	
Uganda	Treaty Cession	1894	223,500	2,500,000	
Zanzibar	Treaty Cession	1890	1,020	200,000	
Nyasaland	Treaty Cession	1891	300,000	1,000,000	
Egypt	Occupation†	1882	400,000	12,000,000	
Anglo-Egyptian Sudan	Conquest	1898	1,000,000	2,000,000	
Mauritius	Conq. & Cession	1810-1814	720	370,000	
Seychelles	Treaty Cession	1814	150	23,000	
Ascension	Occupation	1815	40	150	
St. Helena	Conquest	1673	47	3,500	
<i>America</i>					
<i>Dominion of Canada:</i>					
Ontario	Conq. & Cession	1759-1763	407,262	7,200,000	
Quebec	Conq. & Cession	1759-1763	706,834		
Nova Scotia	Conq. & Cession	1627-1713	21,428		
New Brunswick	Treaty Cession	1763	27,985		
Prince Edward Island	Conquest	1745-1763	2,184		
British Columbia	Settlement	1670	355,855		
Manitoba	Settlement	1811	251,832		
Alberta	Settlement	1670	255,285		
Saskatchewan	Settlement	1670	251,700		
Yukon	Settlement	1898†	207,076		
Northwest Territories	Settlement	1670	1,242,224		
Newfoundland	Treaty Cession	1583	40,000		240,000
Labrador	Treaty Cession	1763	120,000		4,000
<i>British West Indies:</i>					
Jamaica	Conquest	1655	4,200	855,000	
Bahamas	Settlement	1629	4,400	56,000	
Leeward Islands	Settlement	1623-1659	750	140,000	
Windward Islands	Cession	1763-1783	510	200,000	
Barbados	Settlement	1605	170	196,000	
Trinidad and Tobago	Conquest	1797	1,860	330,000	
British Guiana	Conq. & Cession	1803-1814	90,300	310,000	
British Honduras	Settlement	1798	8,600	40,500	
Bermuda	Settlement	1612	20	19,000	
Falkland Islands	Treaty Cession	1771	6,500	3,240	
South Georgia	Treaty Cession	1771	1,000		
<i>Australasia</i>					
<i>Commonwealth of Australia:</i>					
New South Wales	Settlement	1788	309,460	1,650,000	
Victoria	Settlement	1832	87,884	1,320,000	
South Australia	Settlement	1836	380,070	409,000	
Queensland	Settlement	1824	670,500	606,000	
Tasmania	Settlement	1803	26,215	191,000	
Western Australia	Settlement	1828	975,920	282,000	
Northern Territory‡	Settlement	1836	523,620	4,800	
Papua	Annexation	1884	90,540	360,000	
Federal District		1911	912	2,000	
Dominion of New Zealand	Settlement & Conq.	1845	105,000	1,050,000	
Fiji	Cession from natives	1874	7,500	130,000	
Pacific Islands	Treaty Cession	1893-1906	12,500	200,000	
Total			13,220,523	434,504,190	

*Formally annexed, 1914.
†Date of Constitution.

‡Protectorate proclaimed, 1914.
§Part of South Australia, till 1910.

NORWAY
(See Map, p. 37)

In the earliest times Norway, like the sister Scandinavian countries of Sweden and Denmark, was divided among petty kings or chiefs, and its people were notorious for their piratical habits. According to the Saga narratives the Northmen, or Vikings as they were often called, were the first discoverers of America. From the Middle Ages down to the time of Napoleon, Norway was merely a part of the Kingdom of Denmark. After the defeat of Napoleon in 1813, it was arranged by the treaty of Vienna in 1814 that Denmark, which had sided with Napoleon, must cede Norway to Sweden, and the result was the union of the two countries under the Swedish crown. The union was not unaccom-

panied by a certain amount of friction, partly owing to the democratic character of the constitution of Norway, in which country titles of nobility were abolished early in the nineteenth century. Norway declared this union dissolved on June 7, 1905, and a mutual agreement for its repeal was signed on October 26, 1905.

GRANDEUR OF THE FIORDS.—Nowhere else in Europe is there such a combination of mountain and ocean scenery as in Norway; nowhere else does the snow-clad peak rise directly out of the sea; while countless torrents, fed from the ice-fields overhead, plunge at one leap into the gorges below. Nowhere are there such sunsets as in the Land of the Midnight Sun. Language cannot paint that wonderful mystic light which travels around the northern horizon from west to east, so that one cannot tell when a night ends or a day begins.

The charm and grandeur of the famous Geiranger fiord are thus pictured by an enthusiastic writer:

And what a scene it was! Others that I had beheld in Norway were fine, grand, even sublime, but no adjective has yet been coined that could adequately convey an idea of the stupendous magnificence of the Geiranger fiord. Perhaps, after all, simple facts will most clearly explain the character of this marvellous scene. Imagine then a dark waterway absolutely placid, and in no place more than a few hundred yards wide, bordered on either side by gigantic walls of gray and black granite from four to five thousand feet high. They shoot up in a line so straight that a stone dropped from the summit must fall direct into the water. And these mighty precipices extend all along the course of the fiord for many miles, until at last both shores circle round and join in a vast amphitheatre. Under their deep shadows the vessel creeps silently on, while the voices of the passengers are hushed by the solemnity of the spectacle. It must, indeed, surely be impossible to pass through this dark and awful avenue without being profoundly impressed by its weird and grandiose aspect. It is one of those rare scenes of Nature which overwhelm the mind that contemplate them.

One trifling circumstance enabled me to realize the immense height of these gigantic cliffs. The steamers are always followed by a flock of gulls, on the look-out for food, and one of these birds, either satisfied or disappointed by its quest, left us to seek its nest high up among the rocks above. I watched the bird as it flew up the side of the mountain, its white form and flapping wings standing out clearly against the dark gray rock. Little by little it diminished in size, until, when only half-way up the height, it appeared no bigger than a butterfly, then a mere white speck, and ere it had reached its home it had wholly vanished from sight.¹

SYNOPSIS OF NORWAY

(See Map, p. 37)

Norway became a separate kingdom, independent of Sweden, in 1905, under Prince Charles of Denmark, who assumed the name of Haakon VII. It occupies the western portion of the peninsula of Scandinavia in the north-west of Europe.

CLIMATE.—The climate on the west coast is comparatively mild. Part of the country lies within the Arctic Circle, in the region of the polar night and of the midnight sun. The annual mean temperature of Bergen is 44.6° F.; Trondhjem 42.8° F.; and at the North Cape 35.6° F. See *Climate Map of Europe*, pp. 24, 25.

NATURAL PRODUCTIONS.—Agriculture is unable to supply sufficient produce for home consumption hence it is necessary for Norway to import considerable quantities of provisions. The fisheries give employment to a large part of the population throughout the year. The most important are cod and herring. The minerals are few; a little silver and copper are mined. Iron mining has been developed chiefly in the present century.

MANUFACTURES.—The chief manufacturing industries are timber-dressing, mechanical engineering, textile manufactures, shipbuilding, pulp making, and preserved food (especially fish).

TOWNS.—*Christiania* (pop. 243,801) is the capital, principal harbour, and the one industrial town. *Bergen* is the headquarters of the fisheries. *Stavanger* and *Trondhjem* are other important harbours, *Hammerfest*, the most northerly town in Europe, is a centre for whale fishing.

¹E. J. Goodman, "The Best Tour in Norway" (1892).

CHIEF IMPORTS.—These consist chiefly of the necessary articles of consumption, and are sent mainly by Great Britain, Germany, Sweden, and the United States.

CHIEF EXPORTS.—Timber, matches, fish, oil, and other products of the fisheries, pulp, paper, skins and furs, metals, stone, ice, calcium carbide, condensed milk, butter, margarine, canned goods, etc. These go mainly to Great Britain, and the United States.

COMMUNICATIONS.—The total length of railways is about 2,000 miles, including about 300 miles of private lines. The length of telegraphs and telephones belonging to the state is about 14,000 miles.

GOVERNMENT.—The government is a limited monarchy. The *Storting* or legislature consists of two chambers, the *Lagthing* or Upper House and the *Odelsting* or Lower House. The *Odelsting* is composed of three fourths of the members of the *Storting*, and the *Lagthing* of the remainder. All new bills originate in the *Odelsting*. All other matters (except the inspection of public accounts, revision of the government, and impeachment, that belong to the *Odelsting*) are settled in common sitting. Members are paid \$3.20 a day during the session.

On November 2, 1907, the independence and territorial integrity of Norway was guaranteed by Great Britain, France, Germany, and Russia.

SWEDEN

(See Map, p. 37).

In the Middle Ages, especially under its celebrated kings Gustavus Adolphus and Charles XII., Sweden played an important rôle in European affairs, and for a time held considerable provinces on the south of the Baltic. After the Napoleonic wars, when so much of Europe was cast into the melting-pot, Sweden was given possession of Norway, but was separated from it again in 1905. Society in Sweden has retained an aristocratic mould, and has been more influenced by European culture than has society in Norway.

STOCKHOLM.—Stockholm, the capital, stands at the eastern outlet of Lake Mälär, partly on the mainland and partly on nine holms (*holmar*) or islands. Its natural beauty and its waterways have earned for it the name of the "Venice of the North," a description which it shares with Amsterdam.

LIFE IN SWEDEN.—In the long northern winter, the people delight in sleighing, skating, skiing, and tobogganing.

In the winter, too, comes the great season of Yule, or Christmas. People begin to prepare early for this joyous festival. Everybody has Christmas secrets, for gifts are universal. A few days before Christmas, the boats come into Stockholm laden with trees; and in a short while the streets are filled with the spicy fragrance of the forest. Every house in Sweden, from the King's Palace to the poorest hovel, has its Christmas tree; consequently the supply in the markets and shops is enormous, and on Christmas Eve every other person that you see is carrying home a tree. On Sunday before Christmas Day, an old custom permits the shops to remain open; and according to another old custom there is a special Christmas market in the *Stor Torg*, where little booths are erected for the occasion, and where, in addition to all the fancy articles, foods and Christmas-tree decorations, the gingerbread Yule pig (*Yulgrisen*) and Yule goat (*Yulbocken*) are conspicuous.

In every house, from that of the wealthy nobleman to that of the peasant, the same Christmas supper is served: a specially prepared fish for the first course; rice with cream and powdered cinnamon for the second; and roast goose for the third.

The Christmas festivities are not over until January 13th, which is called "Twentieth Day Yule."

A greater festival, however, is Midsummer's Day. Summer in Sweden is very short. Every one, rejoicing in the bright sunshine, tries to make the most of it while it lasts. The days now are eighteen hours long and there is really no darkness. On June 23rd the town is deserted. Steamboats, trams, trains, cabs, and carriages convey thousands into the country and parks to spend the day on the grass and under the trees. Many carry their lunch baskets and others depend on the restaurants, but all are alike in one matter—they wear flowers or a bit of greenery. The birch bough and leaf are conspicuous everywhere. Cabs, carriages, and boats are masses of moving boughs and garlands. Horses and cabmen are also adorned, and everywhere you go, you see the Maypole, sometimes fifty or sixty feet high, gay with ribbons, flowers, garlands, and blue and yellow Swedish flags. The people dance and make merry around it, just as they used to do in England and in this country on the first of May, before the Puritans forbade it. The festivities are kept up all through the night, which is, after all, nothing but a red twilight; and the Midsummer bonfires

answer one another from rock to rock until they mingle their lurid gleams with the glowing banners of Odin's Valkyrie daughters—the Dawn Maidens.¹

SYNOPSIS OF SWEDEN

(See Map, p. 37)

Sweden occupies the south and east parts of Scandinavia, its surface presenting lowland, rather than highland, characteristics. Its more elevated parts are those on the borders of Norway. The east coast, on the Baltic Sea and the Gulf of Bothnia has no deep openings. The rivers and lakes are numerous. The largest river is the Tornea, which rises among the Norwegian mountains and flows into the Gulf of Bothnia. The gigantic lakes not only add to the beauty of the scenery, but materially assist the internal communication, being connected by lines of canals.

CLIMATE.—The lofty table-lands between Norway and Sweden keep back the warm moist winds from the Atlantic; hence Sweden is much drier and colder and has a somewhat continental climate. At Stockholm the mean temperature in January is 24.8° F., and in July 60.8° F. The rainfall varies from 14 to 20 inches. See *Climate Map of Europe*, pp. 24, 25.

NATURAL PRODUCTIONS.—About one-half of Sweden is covered with forest; only 7 per cent of the land is tilled. Grain is grown mainly on the southern plain. The chief crop is *oats*; *rye* is also extensively grown. *Cattle* rearing is carried on to some extent; while in the north the Laplanders breed reindeer.

MINERALS.—Sweden is rich in *iron ore*, some of it the finest in the world as it is almost entirely free of phosphorous (.05% and less). Zinc, copper, and silver are also mined. The supply of coal is scanty, so much so that charcoal is largely used for smelting, and the quality of the iron is thereby improved.

MANUFACTURES.—The manufactories include ironworks, pulp mills, match factories, wood-working establishments of all kinds, breweries, distilleries, and chemical works.

Electrical energy is largely used for industrial purposes, the great waterfalls furnishing an endless supply of power.

CHIEF TOWNS AND THEIR INDUSTRIES

TOWN	POP. IN THOUSANDS	PROVINCE	PRINCIPAL INDUSTRIES
DANNEMORA	2	Upsala	Iron mines.
ESKILSTUNA	29	Södermanland	Iron, steel, cutlery.
FALUN	8	Kopparborg	Copper mining.
GEFLE	36	Gefleborg	(Port for timber, iron, and copper.)
GÖTEBORG	178	Göteborg & Bohus	Cottons, woollens, matches, engineering.
HELSINGBORG	37	Malmöhus	Copper, rubber works, breweries.
JÖNKÖPING	28	Jönköping	Matches.
KARLSKRONA	24	Blekinge	Naval equipments, canvas, leather, breweries.
MALMÖ	96	Malmöhus	(Chief port for German and Danish trade.)
NORRKÖPING	46	Ostergötland	Textiles.
ÖREBRO	33	Örebro	Iron works.
STOCKHOLM	382	Stockholm	Cottons, woollens.
UPSALA	27	Upsala	(University town.)

CAPITAL.—*Stockholm*, on Lake Mälär. Population 382,085.

COMMERCE.—*Göteborg* is the chief port of Sweden. It is closed for a short period, and is connected to the Baltic by a ship canal. *Stockholm* has less trade because it is closed in winter and looks only toward Russia. German trade passes chiefly through *Malmö*.

Commercial travellers in Sweden are compelled to take out a license costing 100 crowns (\$26.80) a month.

CHIEF IMPORTS.—Coal is the principal, while iron and steel goods, grain, wool and woollen goods, rank next in importance. Other imports are coffee, wine, tobacco, and other colonial produce, cloth, manure, oils, and fish.

CHIEF EXPORTS.—Timber, iron, steel, wood pulp, butter, paper, matches, stone, iron and zinc ores.

COMMUNICATIONS.—Sweden has 8,594 miles of railroad, of which 2,746 are the property of the state. There are more than 20,000 miles of telegraph wires (exclusive of railroad telegraph wires) and 246,000 miles of telephone wires.

GOVERNMENT.—The government is a limited monarchy, hereditary in the male line of the House of Bernadotte. The executive power is entrusted to a Cabinet or *Statsråd*, appointed by the King. The *Riksdag* or legislature consists of two Chambers, the First of 150 members elected for six years, the Second of 230 members elected for three years. Members of both Chambers are paid \$330 per session.

¹Esther Singleton, "A Guide to Great Cities" (1910).

DENMARK

(See Maps, p. 37, 39)

The present Kingdom of Denmark is but a shadow of its former greatness. In the eleventh century a Danish king (Canute) ruled over England, Denmark, and Norway; and in the thirteenth century Waldemar the Victorious extended his sway as far as Esthonia, now a province of Russia, and made the Baltic for a time a Danish sea. In the middle of the sixteenth century the Danish kingdom extended from the North Cape to the River Elbe, and included not only Norway but also the southern provinces of Sweden. Norway was lost to Sweden in 1814, and the duchies of *Schleswig* and *Holstein* were annexed by Prussia and Austria in 1864. These two duchies were subsequently annexed by Prussia as an outcome of the war with Austria in 1866.

In the treaty of Prague (1866) there was a provision that "the people of northern Schleswig, if by a free vote they should signify their desire to be united to Denmark, should be ceded to Denmark." The "free vote" was never taken, and in 1878 Austria agreed to the cancelling of the clause; while the Prussian Government has since pursued a policy of repression and Prussianization.

AGRICULTURAL LIFE.—The reorganization of agricultural methods has largely swept away the picturesque associations of Danish peasant life.

It is not so long since conditions in Denmark were just about as primitive as they are now in some other parts of Europe. Jacob Riis,¹ whom I learned, while I was in Denmark, is just as widely known and admired in Denmark as he is in the United States, says that he can remember when conditions were quite different among the homes of the people. "For example," he said, "I recall the time when in every peasant's family it was the custom for all to sit down and eat out of the same bowl in the centre of the table and then, after the meal was finished, each would wipe the spoon with which he had dipped into the common bowl, and without any further ceremony tuck it away on a little shelf over his head."

"To-day," he added, "Danish farmers wash their pigs. The udders of the cows are washed with a disinfecting fluid before milking. When a man goes to milk he puts on a clean white suit."

Not only is this true, but the Danish farmer grooms his cows, and blankets them when it is cold. He does this not only because it is good for the cow, but because it makes a saving in the feed. Although Denmark has more cattle in proportion to the number of inhabitants than any other part of Europe, I noticed very few pastures. On the contrary, as I passed through the country I observed long rows of tethered cattle, feeding from the green crops. As rapidly as the cows have consumed all the green fodder, usually four or five times a day, a man comes along and moves the stakes forward so that the cattle advance in orderly way, mowing down the crops in sections. Water is brought to the cows in a cart and they are milked three times a day. All of this required a large increase of labour as well as constant study, care, and attention. In other words, the Danish peasant has become a scientific farmer.

One difference between the farmer in Denmark and in other countries is that, whereas the ordinary farmer raises his crops and ships them to the market to be sold, the Danish farmer sells nothing but the manufactured product, and as far as possible he sells it direct to the consumer. For example, until about 1880 Denmark was still a grain exporting country; in recent years, however, it has become a grain importing country. Grain and fodder of various kinds to the value of something like 25,000,000 of dollars are now

annually purchased by Danish farmers in Russia and neighbouring countries. The agricultural products thus imported are fed to the cattle, swine, and chickens and thus converted into butter, pork, and eggs. The butter is manufactured in a coöperative dairy; the pork is slaughtered in a coöperative pork-packing house; the eggs are collected and packed by a coöperative egg-collecting association. Then they are either sold direct, or are turned over to a central coöperative selling association, which disposes of most of them in England.

As a gentleman whom I met in Denmark put it: "If Denmark, like ancient Gaul, were divided into three parts, one of these would be butter, another pork, and the third eggs." It is from these things that the country, in the main, gets its living.¹

A NATIONAL ART.—Copenhagen is noted for its beautiful porcelain, an industry which dates from 1760.

It is a notable characteristic of the Danish people to fearlessly and continually allow their individuality its fullest scope. With this object in view, each artist, designer, painter, or sculptor in the factory is permitted a free hand to work out his own ideas. His work-rooms are as beautiful as his products. He is, indeed, a free and unfettered artist in the completest sense. Perhaps that is the reason why his productions, which may now be found in every museum or collection of any importance in the world, represent the highest type of modern national and creative art.²

A DANISH CHICAGO.—The little town of Esbjerg is off the beaten track of the Continental tourist. But this little "Danish Chicago" is the port from which large shipments of bacon, butter, and eggs are sent to the London market.

If you ask how the Danish farmers manage to keep pace with our increasing appetite for Danish eggs, butter, and bacon, the answer is—they coöperate. The butter which is exported is made in their coöperative dairies. The pigs are slain in their coöperative slaughter-houses, and the Danes are not a little proud of the process—one distinguished traveller complains that, during his stay in Denmark, he was always being asked to come and see a pig killed! The eggs are exported by coöperative export societies. If a Dane has only one egg, he can export it—always provided it be a good egg. No mistake must be made about that: before the eggs are packed for export, down in the coöperative factory on the shore, they are held over a basin, filled with electric light, when all defects can be detected with the naked eye. It is no use for an old egg to pose as a young one then. Each egg is marked with the owner's number and the number of his district; the owners of bad eggs are fined. No less than 18,000 Danes belong to this one society. Here, too, butter is packed for the English market.³

SYNOPSIS OF DENMARK

(See Maps, pp. 37, 39)

The Kingdom of Denmark consists of the islands of Zealand, Fünen (or Fyn), Laaland, and Bornholm. Iceland and the Faroe Islands in the North Atlantic are part of the kingdom. Iceland is noteworthy as containing the most northern group of volcanoes in existence, of which Hekla is the best known.

BOUNDARIES.—Denmark is bounded on the north by the Skager-Rak; on the east by the Cattegat, the Sound, and the Baltic; on the south by Prussia; and on the west by the North Sea.

CLIMATE.—The climate is oceanic, and is mild for its latitude. Copenhagen has a mean temperature of 30.2°F. in Jan., and 60.8°F. in July, with a rainfall of 23.6 inches. Terrible storms often lash the coasts of Denmark. See *Climate Map of Europe*, pp. 24, 25.

NATURAL PRODUCTIONS.—The chief products are grain (oats, barley, and rye) and grass on which a large number of cattle and horses are raised

¹Jacob August Riis, Danish-American journalist and philanthropist (1849-1914).

²Booker T. Washington, "The Man Farthest Down" (1913).

³W. J. Harvey and C. Reppien, "Denmark and the Danes" (1915).

⁴F. M. Butlin, "Among the Danes" (1909).

for export. The production of *dairy produce* is so efficiently organized that it has become the principal industry of Denmark.

The lack of minerals explains the absence of any but small manufactures.

CHIEF TOWNS AND INDUSTRIES OF DENMARK

TOWN	POP. IN THOUSANDS	PRINCIPAL INDUSTRIES
AALBORG	34	Outport for grain, dairy products, fish.
AARHUUS	62	Outport for grain and dairy products.
COPENHAGEN	560	China, general trade.
EL SINORE	14	Shipbuilding.
ESBJERG	19	Dairy produce, cattle and sheep, agricultural seeds.
HORSENS	24	Tobacco and general trade.
ODENSE	43	Iron foundries, tanneries.
RANDERS	23	Gloves, distilleries, railway carriages.

CAPITAL.—*Copenhagen*, on the Sound. Population 560,000.

COMMERCE.—Denmark commands an advantageous position on the sea route between the Baltic and the North Sea. *Copenhagen* does a consider-

able trade, but the opening of the Kiel Canal has tended to lessen the importance of the Danish capital. The chief trade is done with the United Kingdom, Germany, Sweden, the United States, and Russia.

CHIEF IMPORTS.—Cereals, oil-cake, coal, ironware, timber, woollens, ships, butter, skins.

CHIEF EXPORTS.—Butter, meat, animals, eggs, skins, fish.

COMMUNICATIONS.—There are 2,200 miles of railway of which more than 1,200 are owned by the state. There are also 25,000 miles of telegraph wire.

GOVERNMENT.—Denmark is a limited monarchy. The *Rigsdag* or legislature is composed of the *Landsting*, or Upper House of sixty-six members, and the *Folkething*, or Lower House of 114 members. Members of both houses are paid about \$2.70 a day while the *Rigsdag* is sitting.

Iceland has a legislature of its own.

COLONIES.—The outlying possessions of Denmark include, besides the Faroe Islands and Iceland, *Greenland* (total area 830,000 square miles, ice-free portion 50,000 square miles, population 12,968), the trade of which is a government monopoly. The three islands in the West Indies—*St. Croix*, *St. Thomas*, and *St. John*—were sold to the United States in 1917, and are now known as the *American Virgin Islands*. See Map, p. 93.

THE NETHERLANDS

(See Map, p. 38)

The Netherlands or Low Countries is a title now more appropriately limited to Holland; but it has embraced most of the two countries that in more than one characteristic merge into one another, and more than once have been politically united. Well-known is the story of that gallant revolt against Philip II. of Spain by that band of "beggars" (*Gueux*)—as they styled themselves in proud humility—who for a generation held out against the greatest military power of Europe. In the end the northern provinces secured their independence and religious freedom, while the more submissive south remained with its Catholic masters.

In the middle of the seventeenth century the United Netherlands were the first commercial state and the first maritime power in the world, and for a long time maintained the mastery of the sea.

Both Holland and Belgium were absorbed in Napoleon's empire, and on his fall formed into a single kingdom, an arrangement which only lasted until 1830, when the southern provinces broke away and formed the Kingdom of Belgium.

DUTCH LIFE ON THE WATER.—The boats, with the mills and the women's head-dress, are the outstanding features of Dutch life.

There is in Holland a life unknown elsewhere, or at least but badly known; it is the life on the water. You must visit this country to comprehend the touching melancholy of the *Spiritus Dei ferebatur super aquas*. Still, what floats on the waters is probably less the Spirit of God than of man, for in the Netherlands you are incessantly recalled to the feeling of reality. At all spots where nature had forgotten to place rivers or streams, Dutch industry has made canals. These waterways lead not merely from one town to another, but even to each village, we might almost say to each country house; hence, such an arterial system could not fail to be marvellously favourable to the circulation of produce. An English traveller asked himself, two centuries back, whether there were not more people in Holland living on the water than on the land. As the majority of these canals are higher than the adjoining fields, and as they are concealed by dykes, at a certain distance off you can see neither water nor boats, but only the swelling sails, which have the appearance of making an excursion about the country. . . . Elsewhere navigation has never been able to compete with the iron ways, but in the Netherlands the greater part of the carriage still continues to be effected by water; and this economic method will for a long time supply most wants. The services rendered elsewhere by carts are here performed by boats; the gardener himself pulls to market his boat laden with vegetables, fruits, or flowers, just as in the south of France a donkey is led along. . . .

The boats specially employed for the passenger service are called *trekschuyten*. They are a species of gondola or water diligence. Along nearly the whole length, which is about 30 feet, runs a box or wooden house, frequently painted green; the roof, on which the sailors walk to perform sundry operations, being covered with a layer of pounded cockle shells. This house is divided into two compartments or cabins; the larger one, situated near the prow, is common to passengers and luggage. Here, during the winter, the worthy people, shut up as in a box, swim along in a cloak of tobacco smoke, which relieves the tedium of the voyage. In summer the wooden shutters are removed, and the hatch is raised from the orifice by which the travellers descend. The second compartment is the cabinet, called in Dutch the *roef*, which is entered through folding-doors. This second cabin is small, but fitted up with some degree of taste. The windows, four or six in number, are glazed and have red or white curtains, according to the season. In the centre is a table with a copper vessel containing fire, and another smaller one to receive cigar ash, both cleaned and polished in a manner only found in Holland. Add to this, to complete the furniture, a mat, a looking-glass, and, in winter for the ladies, a foot-warmer, called the *stoof*, containing a small earthenware vessel with two or three lumps of lighted peat in it. Along two sides of this cabin run cushioned benches, on which the travellers sit down opposite to each other. Sometimes there are on a shelf a few volumes belonging to the boat and forming a floating library at the service of the studious passengers. The whole national character is revealed in this simple and minute attention to comfort. At the bows, the space not occupied by the cabinet is filled with merchandise, bales, and barrels; while the poop is left to travellers who wish to take the fresh air, and the helmsman, who steers and smokes the while with the regularity of a steamer.¹

AMSTERDAM.—The first view of Amsterdam is a surprise to one unfamiliar with Holland. The combination of curious buildings, canals, and bridges, streets, and boats impresses him strangely, and the word quaint constantly rises to his lips as he walks about. At times he seems to be transported to the Middle Ages, and is annoyed when such anachronisms as tramcars, telephones, and advertisements of commercial companies that unite the uttermost parts of the earth, impertinently remind him of the achievements of modern science and that he is living in the Twentieth Century.

One is struck by the absence of horses and vehicles drawn by horses. Cabs rattle by over the very rough cobble stones that pave the streets, postal wagons thunder along, and conveyances and 'buses from the hotels and private equipages are occasionally seen. The bakers and butchers

¹A. Esquiros, "The Dutch at Home" (1863).

and candlestick-makers and all other purveyors appear to deliver their goods by means of a box mounted on a bicycle worked by a boy. The streets are full of little carts or booths presided over by a gentleman in white, who sells ice-cream and sweet cakes. Sometimes the canopy of these booths is gaudily painted. Occasionally there flits by a curious figure clad in black. He wears low shoes and knickerbockers, a long-tailed coat, and a shovel hat! It is a Lutheran preacher—and notwithstanding his solemn face, you feel that his right place is on the boards of the Opéra Comique. Another strange figure passes by you—an old woman who wears a brass helmet upon her head! This is, I fancy, the most singular of all singular head-dresses. It seems to be in three pieces, one fitting tightly over the back of the head down to the neck, the two others above the ears. This metal plate gives one the unhappy impression that the poor thing's head or neck has been broken and that the surgeon has done the best he can for her. Underneath this helmet she usually has a frill of lace or muslin, and above it she not unfrequently wears a bonnet which is Holland's interpretation of the latest Parisian confection of lace, ribbon, velvet, feathers, or flowers. If the lady is in mourning, the bonnet is of crape!¹

SYNOPSIS OF THE NETHERLANDS

(See Map, p. 38)

BOUNDARIES.—The Netherlands is bounded on the north by the North Sea, on the east by Germany, on the south by Belgium, and on the west by the North Sea.

CLIMATE.—The climate is oceanic, of a prevalently moist character. The average annual temperature is 50°F. The summers are not very warm, the winters seldom very cold. In Amsterdam the mean temperature in January is 35.6°, in July 64.4°F. Rain falls on 147 days in the year; the annual rainfall is 30 inches.

The days are generally dull, misty, and damp; a week of bright weather is a rarity. The Netherlands in general is healthy; but Zealand and the other western districts, in which clay and mossy soil prevail, suffer from marsh fevers. See *Climate Map of Europe* pp. 24, 25.

NATURAL PRODUCTIONS.—About one fourth of Holland is below sea-level, the sea being kept out by *dykes*, and the land, parcelled out into almost water-tight inclosures called *polders*, is kept dry by constant pumping of windmills or steam engines. In no other country is wind so much utilized as a source of energy. These reclaimed areas form valuable pastures for cattle; hence the making of *butter* and *cheese* is one of the leading Dutch industries. The cultivation of *bulbs*, especially around Haarlem, is a characteristic industry. The higher lands are on the whole very fertile and produce various grains. Wheat, however, is grown to a less extent than in Belgium.

MANUFACTURES.—There are practically no minerals in Holland, and this

fact has caused the country to rank much lower among manufacturing nations than was the case before coal and iron formed the chief basis of industry. Textile fabrics are manufactured; while Delft has long been famous for its fine pottery.

CHIEF CITIES AND INDUSTRIES OF THE NETHERLANDS

CITY	POP. IN THOUSANDS	PROVINCE	PRINCIPAL INDUSTRIES
AMSTERDAM	567	North Holland	Dye works, tobacco, sugar, coffee.
ARNHEM	64	Gelderland	Woollens, paper, soap, furniture.
DELFT	34	South Holland	Pottery, carpet weaving.
DORDRECHT	46	South Holland	Timber.
GRONINGEN*	75	Groningen	Flax spinning, rope making, dyeing.
HAARLEM	69	North Holland	Dyeing, printing, cottons.
HAGUE, THE*	271	South Holland	Iron casting, furniture, liqueurs, lithography.
LEEUWARDEN	37	Friesland	Iron foundries, copper works, furiculture.
LEIDEN	58	South Holland	Linens, woollens.
MAASTRICHT*	37	Limburg	Quarries, glassware.
NIJMEGEN	55	Gelderland	Beer, leather, tin, pottery.
ROTTERDAM	418	South Holland	Liqueurs, sugar, machine works.
TILBURG	50	North Brabant	Linens, woollens.
UTRECHT*	119	Utrecht	Worsted and velvet carpets.

*Capital of province.

CAPITAL.—*The Hague*, population 271,280. **COMMERCIAL CAPITAL,** *Amsterdam*, on the Y, an arm of the Zuider Zee. Population 566,131.

CHIEF PORTS.—Rotterdam, Amsterdam, and Flushing (Vlissingen).

COMMERCE.—Holland is the "colonial grocer" for Europe, and is one of the leading commercial nations of the world. Her position at the mouths of the Rhine and Maas has led to a very considerable transit trade, as well as to the growth of trade at Rotterdam. These facilities for trade led to the maritime power of the Netherlands, which was very extensive in the seventeenth century, as well as to their colonial acquisitions.

CHIEF IMPORTS.—Coal, iron, steel, copper, textiles, cereals, flour, coffee, mineral oil, rice.

CHIEF EXPORTS. Colonial produce, butter, cheese, margarine, iron, steel, textiles, drugs.

COMMUNICATIONS.—There are about 2,000 miles of railroads, and 4,200 miles of telegraphs. The North Holland Canal and the North Sea Canal provide additional access to the sea.

GOVERNMENT.—Holland is a limited monarchy. The executive is vested in the sovereign, and the legislative authority in the sovereign and the States-general, the latter sitting in two chambers; the First, of 50 members, elected for nine years; the Second, of 100 members, elected for four years. Members of the First Chamber are paid \$4.07 a day during the session, and those of the Second Chamber \$830 per annum and travelling expenses.

COLONIES.—The Dutch colonies are sixty-four times as large as Holland, and consist of some of the richest regions in the world. The *Dutch East Indies* extend from Sumatra to New Guinea, and export sugar, coffee, tea, spices, tobacco, petroleum, etc., which are shipped almost exclusively to Rotterdam and Amsterdam in the first place. Batavia in Java is the most important seaport. The *Dutch West Indies* include Surinam or Dutch Guiana in South America, and the island of Curaçao with its dependencies.

BELGIUM

(See Map, p. 38)

Belgium has been rightly named the "cockpit of Europe," for time and again its soil has been drenched with blood in wars not of its seeking.

On the overthrow of Napoleon the Southern Netherlands with Luxemburg were united to the kingdom of Holland, as the kingdom of the United Netherlands. The experiment was a failure. The Belgians revolted and formed themselves into an independent and sovereign state in 1830. Before Holland would recognize Belgium's independence, Belgium had to give up the eastern half of Luxemburg (now the Grand Duchy), and the portion of Limburg that lies east on the Meuse.

The international status of Belgium was determined by the treaties of 1831 and 1839. The treaty of June 26, 1831, provides that Belgium shall form a perpetually neutral state, and that the powers should guarantee that perpetual neutrality. A further treaty of November 15, 1831, contains the following passage:

Article 7. Belgium, within the limits fixed by Articles 1, 2, and 4 shall form an independent and perpetually neutral state. She shall be bound to observe the same neutrality toward all other states.

Lastly on April 19, 1839, a final treaty concluded between Belgium and Holland reproduced this provision, and the

¹ Esther Singleton, "Holland" (1906).

great powers, Austria, France, Great Britain, Prussia, and Russia, acceding to the treaty, declared that all its articles "are placed under their guarantee."

Belgium therefore is a neutral state; and under international law neutral territory is inviolable. Her neutrality is permanent, determined upon and decreed by Europe, and accepted by Belgium.

The Franco-Prussian War (1870-71) exposed Belgium to serious perils. England simultaneously approached France and the North German Confederation, and required them to make a formal declaration that Belgian neutrality would be respected, threatening, if that neutrality were violated, to intervene in the war. The belligerent states thereupon bound themselves by fresh treaties to respect Belgian neutrality.

For more than eighty years Belgium, relying on these solemn treaties, followed the paths of peaceful progress, and made herself illustrious in the arts, in commerce, and in industry. But on August 3, 1914, the peace-loving kingdom found the invading hosts of Germany at her gates, demanding the right of passage to attack a friendly neighbour; for Belgium forms the easiest route for an army between Germany and France. Belgium, conscious of her right and

obligations, resisted these imperious demands, refusing to look upon the various treaties as "scraps of paper" (so designated by the German Chancellor).

For thus opposing a relentless foe, Belgium once more became a blood-drenched "cockpit." Her fair cities and villages were ravaged and laid desolate; her population was enslaved; and for more than three years all that remained of free Belgium was a narrow strip on the western seaboard, resolutely held by the fragment of her army supported by her Allies.

BURGHER LIFE IN BRUSSELS.—In the home of the Brussels citizen the typical life of the Belgian people is perhaps best revealed. Leaving aside the very small stratum of what may be called Society, the mode of life among the great body of citizens above the working classes is very much the same, in spite of differences of income, occupation, and education.

Whether the head of the household be a lawyer or a trader, a manufacturer or a shopkeeper, who is well enough off to live away from his shop, there is less class difference, so far as the daily routine of life goes, than would be found in any other European community. The explanation is, that at heart the Belgians are a simple people, whose chief characteristic, strengthened by harsh experience for many generations, is thrift. There is a complete absence of all ostentatious display. It would be as impossible to estimate a man's income from the interior of his house as it would be to assign his profession or business from his appearance in the street. This appearance of equality is very largely due to the two not disconnected facts, that the first object with every Brussels citizen is to become proprietor of his own house, and that the houses of Brussels are built very much after the same pattern. This, of course, does not apply to the fashionable boulevards or the Avenue Louise, but in all the by-streets and suburbs now spreading out in every direction, houses are being run up, lofty and narrow, all seemingly fashioned by the same architect. The Belgians have an aversion to being mere tenants, regarding the payment of rent as so much loss of money; and a house, or the money to purchase one, is considered the best kind of *dot* that a young woman can bring to her husband.

It is only on entering these houses that some idea can be formed of the status of the occupant. Among these families whose income is not in proportion to the exterior of their residence, the interior will reveal the fact by its bareness and absence of decoration, whereas those who are comfortably off will expend large sums on painting and gilding. The Belgians are noted for their good taste in the way they decorate the inside of their houses, and as the house is really theirs, they do not mind spending very considerable sums in this way. It is the same with the furniture, which is always as good as the owner can afford in the reception rooms. Every Belgian house has what may be called its show-rooms, and their contents will give the clue at once to the degree of prosperity the family has attained. There may be a thousand pounds' worth of furniture and *objets d'art* in the room, or there may be only ten pounds' worth. In either case it is the best that the owner can show.

There is one thing that these rooms have in common, no matter what the position of the occupant, and that is the air of being rarely used. It is more like the model-room into which the furniture provider invites his customer for the purpose of deciding the style in which he proposes to furnish, than an actual living-room. The Belgian's first investment is to buy his house, and his second is to lay in a stock of furniture. As both are intended not merely to last a lifetime, but to be handed down in the family, the most scrupulous care is taken of every article. A shade of anxiety may be traced on the worthy owner's face if a visitor moves in a chair or brushes past a table.

Into the regular living-rooms no stranger is allowed to penetrate, but the casual opportunities afforded during long residence in the country enable one to see that they are very bare and plain. As a rule, the dining room is in close prox-

imity to the kitchen, so that the necessary domestic service is reduced to a minimum. There is, of course, in most houses a dining room upstairs, but this is only used on the very rare occasions when an entertainment of some sort is given.

The Belgians are not prone to the display of much hospitality among themselves. They do not dine often at one another's houses. The members of the same family meet occasionally, but, as a rule, their dinners in common are to celebrate some family event, such as a marriage, or an engagement, or a first communion. The case is practically unknown of taking a friend home to have 'pot-luck.' To do so would seriously disconcert the lady of the house, who is probably in *négligé* until she goes for her afternoon promenade.¹

EMPLOYMENT OF DOGS.—The dog largely takes the place of the horse in Belgian industrial life. One of the familiar sights in the cities of Belgium are the little milk-carts drawn by big powerful dogs.

Leaving aside the broad and comprehensive question as to whether dogs were ever intended by nature for draught work . . . I think it may be safely assumed that the employment of these big dogs in the little milk-carts of Belgium is free from positive cruelty. This remark also applies to the same kind of dog employed by the greater number of the laundresses, and by some of the bakers. But as it is permissible by the law of the land to use dogs for draught—or as they are called *chiens de trait*—it follows that the poor or the lazy use any and all dogs, big or small, well-fed or ill-fed, to drag their cars and carts carrying their goods for sale, and not infrequently themselves.

In the strict economy of the Belgian social system dogs have no right to existence except as beasts of burden. The rich may indulge themselves with the luxury of a *chien de maison* (house dog) or a *chien de chasse* (hunting dog), but for the Belgians who work, from the peasant to the shopkeeper, a dog has no other interest or value than as a fellow-worker and obedient slave. It is the inevitable concomitant of this practice that cases of cruelty must be frequent, and that the wretched condition of many of the dogs so employed leads to a general condemnation of Belgian character as indifferent to animal suffering and as tolerating a system from which a greater or less degree of cruelty is inseparable.¹

SYNOPSIS OF BELGIUM

(See Map, p. 38)

The Kingdom of Belgium is the smallest and most thickly populated country in Europe. Its shores are flat and low, like those of Holland; the middle of the country is level and fertile; in the east there are hills and mountains, the principal being the *Ardennes*. The chief rivers are the *Scheldt* and the *Meuse* (called by the Dutch the *Maas*). The mouths of both these rivers are in the hands of the Dutch.

BOUNDARIES.—Belgium is bounded on the north by the Netherlands, on the east by Germany, on the south by France, and on the west by the North Sea.

CLIMATE.—The climate of Belgium is temperate. On the coast it is mild and equable, though moist; but in the *Ardennes*, on the other hand, the extremes of heat and cold are considerable. Brussels has a mean temperature of 50°F. (in Jan. 37.4°F., and in July 64.4°F.). See *Climate Map of Europe*, pp. 24, 25.

NATURAL PRODUCTIONS.—The country may be divided into three parts: (1) In the northwest near the coast is a small area which is protected by embankments, which is utilized mainly for *dairy farming*. (2) Between this strip and the highlands beyond the *Sambre-Meuse* valley is a lowland region, the greater part of which is a continuation of the plain of France. In this district are raised crops of *flax*, *sugar beet*, *rye*, *oats*, and *wheat*. (3) South of this valley are the uplands (the *Ardennes*), which are of less agricultural importance.

MINERALS.—Belgium is rich in minerals, and next to England is the greatest coal-producing country in Europe. There are two great coal-fields along the valleys of the *Meuse* and *Sambre*. Iron is obtained in large quantities. Zinc and lead are also produced.

MANUFACTURES.—Belgium has considerable manufactures, the chief of which are cotton, linen, woollen, silk goods, and machinery. Other industries are collieries, quarries, gas, lace, distilleries, etc. The success of the manufacturing industries is attributed, to a certain extent, to the high standard of technical education prevailing.

¹D. C. Boulger, "Belgian Life in Town and Country."

CHIEF CITIES AND INDUSTRIES OF BELGIUM

CITY	POP. IN THOUSANDS	PROVINCE	PRINCIPAL INDUSTRIES
ALOOST	35	East Flanders	Thread.
ANTWERP*	969	Antwerp	Grain, hides, woollens.
BRUGES*	53	West Flanders	Lace.
BRUSSELS*	177	Brabant	Lace, carpets, gloves.
CHARLEROY	28	Hainaut	Glass, iron works.
COURTRAI	36	West Flanders	Cottons, linens.
GHEENT*	166	East Flanders	Linens, cottons.
LIÈGE*	175	Liège	Firearms, iron goods, woollens.
LOUVAIN	42	Brabant	(Louvain University.)
MÉCHLIN	59	Antwerp	Lace.
MONS*	28	Hainaut	Iron goods.
NAMUR	32	Namur	Glass.
OSTEND	42	West Flanders	(Watering place.)
SAINT-NICOLAS	35	East Flanders	Cottons, woollens, linens.
SERAING	41	Liège	Machinery, iron goods.
TOURNAI	37	Hainaut	Hosiery, woollens, carpets.
VERVIERS	47	Liège	Woollens.

*Capital of province.

CAPITAL.—*Brussels*. Population 177,078, with suburbs 720,347.

CHIEF PORTS.—The only large port is *Antwerp*, on the estuary of the Scheldt. *Ostend* is a packet station.

COMMERCE.—Belgium being essentially a manufacturing country is largely dependent upon foreign countries for its supply of food. Most of its maritime trade is carried in foreign bottoms, the mercantile marine consisting of little more than 100 vessels.

CHIEF IMPORTS.—Cereals, flour, wool, timber, flax, resins, skins, seeds, coffee, chemicals, iron, steel, coal, cotton, machinery, cottons.

CHIEF EXPORTS.—Iron, steel, cereals, flour, machinery, skins, linen thread, diamonds, flax, coal, glassware, zinc, sugar, cottons, woollen yarn.

COMMUNICATIONS.—There are 2,950 miles of railroad, 5,000 miles of telegraphs, 1,360 miles of navigable rivers and canals, and 6,100 miles of roads.

GOVERNMENT.—By the constitution of 1831, following the secession from the Netherlands in 1830, Belgium was declared to be a constitutional and hereditary monarchy. The executive power is vested in the King, and his ministers, the legislative power jointly in the King, Senate, and Chamber of Deputies. The *Senate* of 120 members is elected for eight years. The *Chamber of Deputies* consists of members elected for four years, in the proportion of one to every 40,000 inhabitants. One half retire every two years. Each deputy receives 4,000 francs (\$800) yearly, and travels free.

FRANCE

(See Map, p. 40)

The realm of France was foreshadowed in the division of the empire of Charlemagne at the death of his son Louis the Pious by the treaty of Verdun in 843 (see Map of *Empire of Charlemagne*, p. 47). The kingdom of the West Franks, formed by that division, and finally separated from the Frankish Empire in 887, included all the territory west of the Scheldt, Meuse, Saône, and Rhone. The foundation of France dates from the year 987 when the accession of Hugh Capet permanently brought the crown of the West Franks to the family of the Dukes of the French, or Francia, the chief seat of whose power was Paris. "France" meant the territory immediately subject to the Parisian house; but its use spread with every extension of their authority. To the south and southeast a natural limit was opposed to this expansion by the Pyrenees and the Alpine watershed; in the east and north no such natural boundary exists. France had aimed at the Rhine as a natural frontier on the east, and this ambition was realized by the treaty of Westphalia in 1648.

ALSACE-LORRAINE.—Taking advantage of the political disunion of the German and Italian nations, Napoleon extended the boundaries of France and reorganized Germany and Italy as French dependencies. With the birth of a united Italy, the southern frontier of France was once more contracted; while the disastrous war with Prussia in 1870-71 placed Alsace-Lorraine in the grip of the master empire-builder Bismarck. This sacrifice of territory was not made without a protest from the representatives of the departments about to be given up. But the victor was not to be denied his coveted spoil.

The question of Alsace-Lorraine has been at the root of the entire foreign policy of France for the last forty-four years. It was this question which created and kept alive the antagonism between the Republic and the German Empire. But for it, the two great neighbours might perhaps have come to terms. The defeat of the Imperial armies in 1870 would have been but a wound to self-esteem which the change of political régime would have quickly healed. The loss of 5,000,000,000 francs, and even of more than this, would soon have been compensated by renewed material progress.

But when Bismarck forced the nation to give up a population eager to remain French, he laid upon her the obligation of a war to the knife, such as the desire for revenge must entail. When he compelled vanquished France to cede a million and a half of her children as the price of peace, he created a debt of honour for the mother country which a

chivalrous people would have held it ignominious to forget.¹

ALSATIAN FRUGALITY.—The frugality of the Alsatian peasants is remarkable. A traveller who spent a night at a village inn in Alsace gives an interesting picture of the more intimate side of Alsatian life.

I stopped at an inn—the best as it seemed, and this was poor indeed—but as I had not the least expectation of falling into the lap of luxury at such a place, I was well enough pleased at the prospect of sleeping upon a chaff bed, being in no mood to tramp the country any more that night. Outside the door a father and son were sawing a tree into logs. The youth was of that pleasing Alsatian type which, to a large strong body, unites a large strong head with curling yellow hair, blue candid eyes, and a broad, honest, kindly face. The interior of the inn was roomy and dreary. Poverty made itself felt there, and this is depressing, especially to one who has only taken during the day a scratch meal in the forest, and whose mind is now dwelling on thoughts of dinner with a fervour which may be debasing, but which is at least capable of explanation. After some parleying as to the resources of the larder, it was agreed that I should commence with soup and finish with salad, with an omelette between, to serve—I thought—as a buffer. The soup turned out to be bread and milk. It was a long time since I had eaten this food of the ancient Scythians, but I did not quarrel with it. The omelette was an indigestible bolus, but I took this also in good part, after reflecting upon the advantage of keeping it by me as a check to a keen appetite for the next day or so. The salad left nothing to be desired except olive or nut-oil, the oleaginous fluid with which it was mixed being suspiciously like colza. For a moment I pined for the South of France, where one can always have good oil, although the salad may be dried up. If the food at this inn was open to criticism, there was nothing to say against the white wine.

While I was trying to persuade myself that I was fast becoming a model of frugality, the poor family with whom my lot had cast me for the night gathered around a board—literally one—a few yards from mine. No plates were laid upon it, but in the centre was a large earthen pan, containing nearly a peck of potatoes cooked in their skins. The family consisted of the innkeeper and his wife, the young man already mentioned, and several children. While I was wondering why I had not been offered any potatoes, parents and children stood up and made the sign of the cross as the youngest child—a little girl of eight—began to say grace. It was in the Alsatian dialect, and I could hardly catch a word of it. It lasted several minutes. I was much impressed by this scene. The meal for which these people

¹P. A. Helmer, in "The War of Democracy" (1917).

thanked God so earnestly and reverently was merely potatoes and water. There was better food, but they did not consider themselves justified in eating or drinking otherwise than as I saw them. The meal was over in twenty minutes, and then father and son returned to their sawing. How can they keep up their strength with potatoes and water? I asked myself, and others may ask the same question. The answer is, because they lead natural lives and have healthy bodies. . . . A more manly and vigorous set of men than the Alsatian peasants is not to be easily found, and yet the quantity of meat which they eat is so small that they might do without it altogether without feeling any physical loss. They have been bred to frugality, and here lies their strength.

The floor of my bedroom was very black, but the walls were much ornamented with lithographic works of art, all religious in character. The furniture was more than sufficient, for there were some benches and a long deal table, at which twenty could have dined comfortably. The bedstead was so short that I should certainly have kicked the lower board out had it not been designed to resist unusual pressure. There were no blankets—a peculiarity of the Alsatian inns. The substitute is what the French call *édredones* [eider-down quilts]—in Alsace great bags of goose-feathers. They are piled one upon another, whether the season be winter or summer, so that a bed ready to be slept in is unpleasantly suggestive of the fate of Desdemona. He who wishes to sleep without dreaming of mountains settling upon him and bearing him down into the lowest depths must throw some of these bags upon the floor—all of them if the weather be hot. Alsace is likewise remarkable for the number and lustiness of the fleas which haunt the village inns. At Ober-Steinbach these entertaining insects galloped over me until daybreak, when, they getting tired, I fell asleep on my chaff bed.¹

A BIRD'S-EYE VIEW OF FRANCE.—In France everything speaks of long familiar intercourse between the earth and its inhabitants; every field has a name, a history, a distinct place of its own in the village polity; every blade of grass is there by an old feudal right which has long since dispossessed the worthless aboriginal weed.²

For a bird's-eye view of France we can not do better than glance over its chief river basins, connected, as they often are, by a network of well-used canals. Crossing twenty miles of sea to land at Calais or Boulogne, perhaps as well known to Englishmen as to Frenchmen of this generation, we find ourselves in the mainly flat northwestern corner, where are grouped some of the chief manufacturing cities, Lille, the largest of them, with over 200,000 people, Roubaix and Tourcoing growing apace on the Belgian border, near which the old port of Dunkirk was once a den of Channel pirates. Here is one of the great French coal-fields. . . . To the south the Picardy province is the basin of the Somme, on which stands Amiens, famed for its cathedral and for its manufactures; then lower comes Abbeville; and at the mouth St. Valery claims to be the port from which William the Conqueror sailed for England, an honour disputed by another St. Valery on the Norman coast. On the north side the name French Flanders shows how the frontier here is an artificial one, and this region is drained into Belgium by the Scheldt. Farther east we come upon the upper basin of the Meuse, where the Belgian Ardennes cross into France, and the best-known modern place is that unlucky Sedan, a fortress close to the frontier.

To the south of this hilly country the upper courses of the Marne and the Seine water the dusty plains and slopes of Champagne, in which are Rheims—at whose cathedral the French kings were crowned—the great military camp of Châlons-sur-Marne, and, farther south, the considerable city of Troyes among others of fame. The celebrated wine is chiefly made in the central Marne department, but the demand for it is so great that it seems hard to say whence comes most of the so-called champagne. Westward, on

the northern edge, in Lorraine, we reach the basin of the Moselle, whose noble ex-capital, Nancy, still belongs to France; but half of this province and all of Alsace, between the Vosges and the Rhine, have been shorn away, a scar not yet skinned over, either in the heart of France or of the people, though by race and speech these borders are more German than French. An old division between the two nations is hinted at in opposite banks of the Saône and the Rhone being still distinguished by boatmen as *royaume* [kingdom] and *empire*.

Turning now along the eastern side, we follow the Saône and its tributaries flowing through the old Burgundy and Franche-Comté between the Jura and the wine-growing heights of the Côte d'Or. The chief place in this basin is Dijon, and in its eastern mountain region the fortress-city of Besançon. The Saône loses its name where the Rhone masterfully rushes into it from the Lake of Geneva, their confluence being at the stately city of Lyons, whose silk-weaving industry has made it the third in France, with 523,000 people, who more than once have shown a disposition to resent the supremacy of Paris. Not far off, at the head of the Loire basin, coal and iron are making St. Etienne a French Birmingham.

From Lyons the navigable Rhone, following the southward course of the Saône, takes us through the plains of Languedoc, shut in on one side by the low bare Cevennes, fastnesses of persecuted Protestantism, and by the limestone freaks of the Causses; on the other side more grandly walled by the Alps of Dauphiné, in which Grenoble is one of the dignified cities of France, and, higher up, in Savoy, the chain is pierced by the Mont Cenis tunnel, France's chief gate into northern Italy. Many old towns stand on or about the river, the most famed among them Avignon, at one time seat of the exiled Popes, amid scenes famed by Petrarch; and Orange, once an independent principality, which sent forth a brood of princes to the thorns in Rome's side. Nimes is notable for its well-preserved amphitheatre, and in the neighbourhood the Pont de Garde shows one of the most impressive legacies of old Rome; Tarascon has been renowned by a writer to whom his fellow-Southerners bear little gratitude; while Aix, seat of the Counts of Provence and their troubadours, figures as the "Plassans" of another much-read novelist. At Arles, celebrated for Roman remains as for a strain of Roman beauty in its daughters, the Rhone divides into two main branches, enclosing the marshy delta of the Camargue, whose most wholesome production is salt made from its lagoons. Several "dead cities" here delight artistic eyes.

But the chief port of all France is Marseilles, an ancient Greek colony that preserves the name *Massilia*, as Province does for the *Provincia* from which Roman civilization spread over Gaul. Finely situated on the Gulf of the Lion, Marseilles has half a million of people gathered from all the territories of France, strongly tinged with a hot blood that gave this city a special part in the national history. Farther west comes Toulon, the Mediterranean naval port; then a beautiful mountain coast-land shelters the genial Riviera resorts, chief among them Nice, birthplace of Garibaldi, an Italian city indeed till half a century ago, when the French frontier was pushed from the Var to the gorge of St. Louis at Mentone. Between Nice and Mentone the tiny independent principality of Monaco invites headachy lotus-eaters to its Monte Carlo gambling-palace, but for which this sunny spot, basking under the lofty precipices of the Corniche, might be the choicest winter resort in Europe."¹

STILT-WALKERS OF THE LANDES.—A traveller gives the following account of an excursion among the stilt-walkers of the Landes:

Not long since, while at Bordeaux, I had an opportunity to go among the stilt-walkers, whose country is called the desert. It is little known even to Frenchmen. There is not much to attract in that vast barren tract, supposed to have been a former bed of the sea, wave-like in its surface, shifting sands upon fixed sand, patches of cultivation, and

¹E. H. Barker, "Wayfaring in France" (1890).

²Edith Wharton, "A Motor-flight through France" (1908).

¹A. R. Hope Moncrieff, "The World of To-day" (1906).

forests here and there; now and then a bog; occasionally a horizontal plain crossed by a black-looking stream in a gully; and a few far-scattered villages, or groups of unwalled sheds such as might be met with by the traveller in Central Africa.

Yet in the dullness and dreariness a charm exists, which changes to absolute wonder when an inhabitant comes upon the scene—a queer creature clad in sheep-skins, mounted on a pair of wooden supporters reaching to his knees, and strapped to them and to his ankles—his scanty flock of sheep nibbling at almost invisible herbage. From the Garonne to the Adour, and from the Gélise to the Bay of Biscay, these tracts extend; parts are half cultivated, others are hopeless gravel, some are reclaimable sand, but all are hostile to grain crops of any description. The small herds of cattle are composed of beasts so small and thin, that they appear to have been starved out of their natural size.

A peasant's abode, which I visited, was neither a hut, tent, nor cottage, but a thatch, extending from the trunk of a living tree, supported at the four corners by poles of pine-wood, open to all the winds that blow, and fenced about, for a foot in height, by loose stones or blocks of half-burned clay. Every shepherd of the Landes has several stations, which he calls his homes; for pasture will nowhere suffice for more than a few days as the food for a flock.

Each morning he rises, just as the day is dawning, and puts on those quaint leggings called stilts, 6 feet 6 inches high, raising his feet about two-thirds of that altitude from the ground and enabling the wearer at once to follow his flocks, to defy wolves, and to pass from one oasis to another with great swiftness. No horse in that region can beat him. At a first glimpse of these fellows on a misty morning balancing their long poles and taking yards at a stride, I thought of so many spectres of the Brocken, so giant-like and supernatural did they appear.

The stilt of the Landes is not simple in its build. You have the "upright" to begin with, then a jutting piece of wood two-thirds of the way up, with a strap, and another leathern band for the knee; it is shod with leather to prevent sinking too deep in the sand and slipping on the clay. This mode of locomotion is practised by the inhabitants from the earliest childhood.

PARIS.—Paris, the capital of France, is the third largest city in the world and the largest city on the Continent. The French certainly have reason to be proud of their metropolis, for not only is it a magnificent city, but its influence is felt throughout the civilized world. In fashions of dress Paris reigns supreme; in politics the provincial towns of France follow the lead of the capital; while no European court can afford to neglect French opinion.

Paris is built on both banks and on two islands of the Seine, and is surrounded by a double line of walls with bastions, and further protected by a ring of detached forts. Round the walls are finely planted walks encircling the city; these are the exterior boulevards. The inner boulevards consist in their finest part of a broad thoroughfare bounded on either side by a row of trees and a broad pathway, and lined with elegant shops and mansions. The whole forms a scene of animated gaiety and splendour unequalled by any other city.

MOTORING IN PARIS.—It is said all good Americans go to Paris when they die, but no motoring American will wait till the hereafter if he has half a chance to go there now. In saying this it is fair to add that I am going counter to the opinion of friends who have motored in France. When they reached Paris they stored their automobile and resorted to 'buses and taxicabs; they thought it too dangerous to motor on the capital's crowded thoroughfares.

It is true that amid the congested traffic of one of the world's largest cities one needs steady nerves and a cool head, but even on the Boulevard des Italiens and the Avenue

de l'Opéra we experienced no special difficulty; and there was keen delight in watching that wonderful stream of vehicles, of horses, of humanity, and of being for the moment an atom in that great stream, mingling with it, a part of its life, of its infinite variety! Such a stream is to be seen in only two or three of the world's largest cities, and even in them—in New York and in London—the scene is not so variegated, so animated, so picturesque as it is on the great boulevards of Paris.

The hotel we went to was near the Opera House, so was the garage, and it took but a few minutes after dinner each evening during our stay to get the Get-There (as we called our car) and plunge into one or the other of the animated streams which begin at the Place de l'Opéra and radiate thence in a dozen different directions to the farthest extremities of the metropolis. During the ten days that we were thus tempting fate, and, according to our friends who stored their automobile and rode in 'buses, that we were running the risk of all sorts of accidents, we had not a single mishap, not a breakdown, not a scratch. Even our lamps came out of the ordeal unscathed, although there were moments when the long line of vehicles hesitated and halted, and it required skilful handling to avoid collision with the driver just ahead or just behind us.

One thing did happen during those ten days, but that was funny rather than serious. I was arrested. It was one afternoon on the Boulevard des Italiens. While Beamer stepped into the bank, and while I waited her return, seated in the Get-There in front of the Crédit Lyonnaise, a policeman approached, touched his cap in polite salute and said it desolated him inexpressibly, but that he was obliged to place me under arrest! Why? Because my motor was smoking. I looked around, but not a bit of smoke did I see. "Ah, Monsieur, c'est vrai (that is true), but that is because the motor is now resting. But a while ago! Mon dieu, yes, it was then that Monsieur's motor smoked. I saw it. I followed. And now, Monsieur, be so good as to give me your address."

I gave it. "What next?"

"Nothing, Monsieur. C'est tout" (that is all).

"But you said I was under arrest?"

"Mais oui (yes) but for the present c'est tout. Monsieur is at liberty to proceed!"

And giving another polite salute, the policeman took his departure. At the hotel that evening we were told that in a week or ten days there would be left at the hotel a summons to appear before a magistrate, who would probably fine me five francs.

"But we shall not be here after this week."

"Ah, in that case, Monsieur, they can not fine you."

And that was all there was to it. After my "arrest," which detained us less than ten minutes, we continued our drive to the Place de la Bastille, in doing so passing through the eight principal boulevards of Paris—the Boulevards des Italiens, Montmartre, Poissonnière, Bonne Nouvelle, St. Denis, St. Martin, du Temple, and Beaumarchais, and thence to Napoleon's tomb by the Boulevards Henri IV. and St. Germain. Any one who can without mishap conduct an automobile along this route between three and six o'clock in the afternoon can fairly claim to know how to drive a motor car. Such a jam of men, horses, and automobiles is to be seen nowhere else in the world; in London there is as big a jam of men and horses, but Paris has more automobiles, and they rush about without the least regard for speed laws or the safety of pedestrians. Were it not for the little "islands" stationed at intervals in the centre of the streets it would be quite impossible for a pedestrian to cross a Paris boulevard. As it is, he must watch his chance to dart over to the island; there, under the sheltering wing of a tall lamp-post, standing on the raised circle around its base, he must watch the stream of humanity going the other way on the other half of the street and wait for a gap through which to dart across to his destination. If he is timid and waits for too big a gap he may stand by that lamp-post an hour; but after one has been in Paris a while one ceases to be timid in such matters. Every one seems to be rushing across the boulevards, almost under the horses' hoofs or the automobile wheels, and everybody—or nearly everybody—gets across

alive; so you, too, soon find yourself willing to take chances.²

MARSEILLES.—Marseilles is not only the largest port of France, but also the chief commercial port on the Mediterranean. It competes with Trieste and Brindisi in its Oriental passenger trade. The capital of southern France has a distinct character of its own.

To-day, as three thousand years ago, Marseilles may be called the threshold of the East. In these hot, bustling, noisy streets, Paris is quiet by comparison; London a Trappist monastery! Orientals, or what our French neighbours call exotics, are so common that no one looks at them. Japanese and Chinese, Hindus, Tonquinois, Annamites, Moors, Arabs, all are here, and in native dress; and writing letters in the salon of your hotel, your *vis-à-vis* at the *table d'hôte*, your fellow sightseers, east and west, to-day as of old, here come into friendly contact; and side by side with the East is the glowing life of the South. We seem no longer in France, but in a great cosmopolitan mart that belongs to the whole world.

Superbly situated, magnificently endowed as to climate, the *chef-lieu* of the Bouches du Rhône must be called a slatternly beauty; whilst embellishing herself, putting on her jewels and splendid attire, she has forgotten to wash her face and trim her hair! . . . Marseilles is dirty, unswept, littered from end to end; you might suppose that every householder had just moved, leaving their odds and ends in the streets, if, indeed, these beautifully shaded walks can be so called. The city in its development has laid out alleys and boulevards instead of merely making ways, with the result that in spite of brilliant sky and burning sun, coolness and shadow are ever to be had.

But it is not only by beautiful villas and gardens that the city has embellished itself. What with the lavishness of the municipality, public companies, and the orthodox, noble public buildings, docks, warehouses, schools, churches, gardens, promenades, have rendered Marseilles the most sumptuous French capital after Paris.²

HINTS TO MOTORISTS IN FRANCE.—If one's motor trip is confined to a single country it may not be worth while to join a foreign touring club; you pay the duty on your automobile when you enter the country and you get your money back when you leave; there is but one such transaction, and it involves but little trouble and no expense. But if several countries are to be visited a club membership is helpful.

When we reached Havre the Get-There (our car) was inventoried and weighed, and a duty of six hundred and seventy-six francs was paid; this amount, less two cents for a receipt stamp, was refunded three months later when we left France for the last time at the frontier near Mentone. That was our only direct dealing with customs officials, for before starting east we went to the handsome home of the Touring Club de France, at No. 67 Avenue de la Grande Armée, and paid six francs for a membership, which entitled us to secure for each country we purposed visiting what is called a "Triptyque," *i. e.*, a certificate in triplicate setting forth that we had deposited with the club's treasurer an amount sufficient to cover all duties which the Get-There would have to pay.

Armed with a triptyque as you cross a frontier, instead of being obliged to weigh your automobile and furnish a detailed description of its colour, its seats, number, motor, etc., and then pay a large sum in cash in the currency of the country you are about to enter—instead of all this delay and bother you merely present your triptyque; the customs officer retains the first sheet and stamps on the second sheet the date of your entry; when you recross the frontier the date and place of your exit are stamped on the second sheet; your goings and comings continue to be thus stamped

on the second sheet until you leave the country for the last time, then the officer retains the second sheet, and on the third one certifies that you have made your final exit. On forwarding this third sheet, so certified, to the Touring Club de France the amount of your deposit for the country you have definitely left is at once sent to you at any point you request.

As we purposed motoring in several countries the total deposit we had to make with the club's treasurer amounted to nearly two thousand francs, but just as soon as the Get-There was shipped from Naples to New York the last franc was promptly refunded; the convenience afforded us in getting in and out of the various countries visited was well worth the hundred days' use of our money and the fee of twenty francs which the club charged for issuing the triptyques. Sometimes, as when visiting the battlefields of 1870, between Mars le Tour and Metz, we crossed backward and forward between France and Germany several times in the course of half a day; as we had triptyques this entailed little delay. Without triptyques half a day might have been consumed in making a single frontier crossing. It takes only a minute to show a triptyque and have it stamped, whereas to have an automobile weighed and minutely described for future identification takes anywhere from an hour to a day, according to the humour of the frontier official making the inventory.¹

SYNOPSIS OF FRANCE

(See Map, p. 40)

BOUNDARIES.—France is bounded on the north by the English Channel; on the west by the Bay of Biscay; on the east by Germany, Switzerland, and Italy; and on the south by the Pyrenees and the Mediterranean.

CLIMATE.—France enjoys the most delightful climate in all Europe; only the actually mountainous districts have a severe climate. Elsewhere, even in the northern departments, the winters are mild, while even in the most southerly, the summers are not too hot. The climate of western and southern France is "oceanic," permitting palm trees to flourish in the open air (mean temperature in Jan. of Marseilles 44.6°F., of Bordeaux 42.8°F.), while that of eastern France is more "continental" (mean temperature in Jan. of Nancy 33.8°F.). The annual mean temperature of southern France is 50°F., of central France 55.4°F., and of northern France 50°F., much higher than the temperature of similar latitudes as, *e. g.*, Germany. The rainfall is great; on the Atlantic coast rain falls on 152 days per annum, in the centre on 140, and in the south on 60-70. In the south and west the maximum rainfall occurs in autumn, in the northeast in winter. See *Climate Map of Europe*, pp. 24, 25.

NATURAL PRODUCTIONS.—(1) *Agriculture*. Half the total area of France is under cultivation, and of the remainder one third is pasture and another third forest land. Most of the cultivable land is split up into very small farms, worked usually by peasant proprietors.

Wheat is the principal grain crop, and grows in all parts of the country, but more particular north of the Seine. *Oats* are cultivated in the north and northeast; *rye* in the central plateau; *maize* in the Rhone Valley and southwestern plains; and *buckwheat* in the northeast. The *vine* is the most valuable of the agricultural products, for France is the greatest wine producing country in the world. The chief vine regions are the valleys of the Garonne and Dordogne, claret being obtained from the north of Bordeaux; the valleys of the Loire and the Allier; the region of the headstreams of the Seine system, where the wine takes its name from the province, Champagne; the Saône Valley, where the eastern slope of the Côte d'Or produces Burgundy; the Rhone Valley and the Mediterranean districts.

The *sugar beet* is extensively grown in the northeastern part of France, especially in the provinces of Artois and Picardy. The northern departments also produce most of the colza for oil-making, and more than half the *flax*. The *olive* is cultivated in the south; while the silkworm is reared on the leaves of the *mulberry* trees grown in most parts of the Rhone Valley. *Oranges* and other fruits are cultivated in the Riviera. *Tobacco*, which is a government monopoly, is grown almost exclusively in the valley of the Garonne and in Algeria. *Wood* is the chief domestic fuel; the forests, principally in the east and southwest, occupy about 23 million acres.

(2) *Cattle and sheep farming*. Cattle are raised on the western plains, and sheep on the central plateau. Most of the agricultural labour is performed by oxen, and in the south by donkeys and mules.

(3) *Fisheries*. Fishing is extensively carried on around the shores; while French fishing vessels visit the banks of Newfoundland and Iceland for cod. *Oyster culture* is an important industry on the Atlantic coast, especially at Arcachon, and on the Mediterranean coast.

(4) *Minerals*.—The mineral wealth is much less than that of Great Britain, consequently manufactures do not occupy so large a place in the industrial life of the nation. There are only two large *coal fields*, one in the northeast which extends from the Belgian frontier south of Lille, and the other on the eastern edge of the central plateau with St. Etienne as its chief centre. *Iron* is nearly all mined at or near Nancy, where a considerable iron and steel industry has developed. *Lead* is the only other metal much worked; it is found in the mountains of Auvergne in central France. *Salt* is mined on the borders of Switzerland, Germany, and Spain, but one

¹Lee Meriwether, "Seeing Europe by Automobile" (1911).

²Betham-Edwards, "In the Heart of the Vosges" (1912).

¹Lee Meriwether, "Seeing Europe by Automobile" (1911).

half of the supply comes from the salt marshes (*salines*) of the flat shores of the Bay of Biscay and the Mediterranean.

MANUFACTURES.—The chief manufacture is *silk*, the next *wine*, and then *woollen goods*. Nine tenths of the silk woven is made at Lyons. Woollens are produced chiefly in the north, about three-quarters of the raw material being imported. *Cottons* are more largely made at Rouen, a port well situated on the Seine for obtaining American cotton. *Lace making*, a typical French industry, occupies large numbers of women in their own homes. In the making of furniture, jewellery, and other objects of art, France is unsurpassed.

Water power is largely used in French manufactures. On the slopes of the Vosges and in the valley of the Isère, where coal is difficult to obtain, water is the chief source of power. Water power from the Rhone at Lyons and from the Loire near Saint-Étienne is used also to supplement steam power.

CHIEF CITIES AND INDUSTRIES OF FRANCE

CITY	POP. IN THOUSANDS	DEPARTMENT	PRINCIPAL INDUSTRIES
AMIENS*	93	Somme	Cottons and woollens.
ANGERS*	83	Marne-et-Loire	Sail cloth, hosiery, leather, chemicals, slate quarries.
ANGOULÈME*	38	Charente	Paper, woollens, linens, distilleries, tanneries.
AVIGNON*	49	Vaucluse	Silk.
BESANÇON*	57	Doubs	Watches, linens, cottons, silks.
BÉZIERS	51	Hérault	Woollens, hosiery, chemicals.
BORDEAUX*	261	Gironde	Sugar, soap, shipbuilding, potteries, distilleries.
BOULOGNE-SUR-MER	53	Pas-de-Calais	Soap, earthenware, linen, woollens, coal, corn, butter, fish.
BOURGES*	45	Cher	Cloth, leather.
BRISTOL	90	Finistère	Cereals, brandy, sardines, mackerel. (Naval dockyard.)
CAEN	46	Calvados	Lace.
CALAIS	72	Pas-de-Calais	Cotton, silk, bobbinet lace. (Naval dockyard.)
CHERBURG	43	La Manche	Confectionery, hats, boots and shoes.
CLERMONT-FERRAND*	65	Puy-de-Dôme	Wines, cotton, tanneries.
DIJON*	76	Côte-d'Or	Linens, especially jute and sail cloth, leather, soap, starch, ropes.
DUNKIRK	38	Nord	Gloves, linens, leather.
GRENOBLE*	77	Isère	Sugar, cottons, paper, glass, oil.
LE HAVRE	136	Seine-Inférieure	Woollens, linens, machinery, leather.
LE MANS*	69	Sarthe	Motor cars, carriages, perfumery, liqueurs, soap.
LEVALLOIS-PERRET	68	Seine	Woollens, beet sugar, textiles.
LILLE*	217	Nord	Enamel goods, porcelain, cloth, foundries.
LIMOGES*	92	Haute-Vienne	Shipbuilding.
LORIENT	49	Morbihan	Centre of silk manufacturing.
LYONS*	523	Rhône	Shoes, leather goods, sugar, soap.
MARSEILLES*	550	Bouches-du-Rhône	Cottons, candles, soap, chemicals.
MONTPELLIER	80	Hérault	Paints, oils, varnish, glass, chemicals.
MONTREUIL-SOUS-BOIS	43	Seine	Woollens, cottons, lace.
NANCY*	119	Meurthe-et-Moselle	Machinery, linens, cottons, sail-cloth, flannel, leather, ropes.
NANTES*	170	Loire-Inférieure	Chocolate, varnish, carpets.
NEUILLY-SUR-SEINE	44	Seine	Perfumery, soap, tanning.
NICE*	142	Alpes Maritimes	Silk and cotton goods.
NIMES*	80	Gard	Confectionery, pottery, woollens.
ORLEANS*	72	Loiret	Silks, leather goods, carpets, tapestries, bronzes, lamps, watches, gloves, sugar. (Health resort.)
PARIS*	2,888	Seine	Iron, wool, oil, wine, corks, leathers.
PAU*	37	Basses-Pyrénées	Printing, brushes, tanning.
PERPIGNAN*	39	Pyrénées-Orientales	Wines, flannels, blankets, merinos.
POITIERS*	41	Vienne	Sail cloth, linens, shoes, hats.
REIMS OR RHEIMS	115	Marne	Cottons, woollens, linens.
RENNES*	79	Ille-et-Vilaine	Wine, brandy.
ROANNE	36	Loire	Textiles, beet sugar.
ROCHFORD	36	Charente-Inférieure	Woollens, chemicals, beet sugar, earthenware.
ROUBAIX	122	Nord	Tanneries, breweries, gelatine, soda, calicoes.
ROUEN	124	Seine-Inférieure	Coal and iron, silks, cutlery.
SAINT-DENIS	71	Seine	Shipbuilding, steel works.
SAINT-ÉTIENNE	148	Loire	Metal founding, machine construction.
SAINT-NAZAIRE	38	Loire-Inférieure	Cottons, woollens.
SAINT-OUEN	41	Seine	Shipbuilding, fishing, lace-making, wine growing. (Naval dockyard.)
SAINT-QUENTIN	55	Aisne	Iron goods.
TOULON	104	Var	Woollens, cottons, linens, silks, dye works.
TOULOUSE*	149	Haute-Garonne	Silks.
TOURCOING	82	Nord	Cottons, woollens, soap, paper, gloves.
TOURS*	73	Indre-et-Loire	Boots and shoes, market gardening.
TROYES*	55	Aube	
VERSAILLES*	60	Seine-et-Oise	

*Capital of department.

CAPITAL—Paris, on the Seine. Population 2,888,110.

CHIEF PORTS.—Marseilles, on the Mediterranean, is the chief harbour and trades with Mediterranean ports and the Orient; Havre, at the mouth of the Seine does the chief import trade in grain and raw materials from America; Bordeaux, on the Garonne, is the chief wine exporting town; Nantes, Dunkirk, Calais, Boulogne, Dieppe, and St. Nazaire, are less extensive seaports. The great naval ports are Cherbourg, Brest, and Toulon.

COMMERCE.—The position of France on three seas gives her great natural advantages for foreign commerce, while her magnificent network of rivers,

and railroads facilitates a brisk trade at home. The foreign trade is carried on chiefly with the United Kingdom, the United States, Germany, Belgium, and Italy.

WITH THE UNITED STATES.—From the United States France receives cotton (raw and manufactured), copper, oils, iron and steel manufactures, breadstuffs, tobacco, etc. In exchange she exports to the United States silks, cottons, works of art, woollens, fruits, etc.

CHIEF IMPORTS.—Wool, cotton, coal, oleaginous fruits and seeds, machinery, raw skins, cereals, timber, caoutchouc, copper, petroleum oils, coffee, and wines.

CHIEF EXPORTS.—Cotton tissues, silk tissues, wool, woollen tissues, wines, small wares, automobiles, silks, raw skins, millinery and artificial flowers, dressed skins, tools and metal goods, machinery, pig iron, butter, table fruits, refined sugar, brandy and liqueurs, fish, and cheese.

COMMUNICATIONS.—The system of railroads is very extensive. They are almost entirely *concedés*, and become state property after the expiration of the concession.

There are 30,000 miles of railway divided among six great companies, whose lines scarcely overlap. The *Northern* occupies the section between Boulogne and the German frontier, with connections to England by the Calais-Dover route. The *Western* sends one main line down the Seine valley through Rouen to Havre and Dieppe, another to the naval harbour of Cherbourg in Normandy, and a third to that of Brest in Brittany, with branches to the chief intervening towns. The *Paris-Orleans* serves the area between the Loire and the Garonne, including the wine-producing district of Charente; the chief centres of traffic are Orleans, Tours, and Poitiers. At Bordeaux it connects with the *Southern* lines, one of which runs into Spain at Bayonne, leading to Madrid and Lisbon, another by Toulouse to Certe, Montpellier, and Spain. The *Paris-Lyons and Mediterranean* has the greatest amount of traffic, and has two lines to the south traversing the wine-growing districts of Burgundy and the silk and iron centres of the Upper Loire and Rouen valleys. The main line runs southeast to Dijon (whence a branch leads to Bern), turns south down the valley of the Saône to Macoo (the junction for the Mont Cenis tunnel route to Italy). The *Eastern* railway brings the vineyards of Champagne, and the iron-works of Meurthe-et-Moselle into communication with the capital. One line through Châlons, a wine centre, and Nancy, enters Germany by Avricourt; another passing the fortifications of Belfort goes into Alsace and Switzerland, connecting with Austria by the Arlberg tunnel, and with Italy by the St. Gothard tunnel.

The length of telegraph wires is 152,000 miles, and of telephone lines 108,000 miles.

The rivers are extensively used for inland navigation, their usefulness being increased by a number of canals connecting them with one another and the rivers of the neighbouring countries.

COINAGE. The *franc* of 100 *centimes* is of the value of 19.3 U. S. cents or 9½ *d.* Gold coins in use are 20 and 10 franc pieces. Silver coins are 5, 2, 1, and ½ franc pieces and 20 centime pieces. Bronze coins are 10 and 5 centime pieces. There is a double standard of value, gold and silver, the ratio being theoretically 15½ to one.

The present monetary convention between France, Belgium, Italy, Switzerland, and Greece—known as the Latin Union—is continued from year to year. According to its terms the five contracting states have their gold and silver coins respectively of the same fineness, weight, diameter, and current value.

GOVERNMENT.—France, since the overthrow of Napoleon III. in 1870, has been a Republic governed by a President and two Chambers. The *President* is elected for seven years by the two Chambers united in National Assembly, and receives 600,000 francs (\$120,000) a year, and a further allowance of 600,000 francs for expenses. He appoints the ministers and makes all civil and military appointments. War can be declared by the President only with consent of the two Houses, and his every act must be countersigned by a minister.

The legislature consists of the National Assembly, sitting in two houses; namely, the *Senate* of 300 members, indirectly elected for nine years (one third retiring every three years), and the *Chamber of Deputies* of 584 members elected for four years by universal suffrage. Both houses can initiate and frame laws, except in the case of financial laws, which must first be presented to and voted by the Chamber of Deputies. Deputies and Senators are both paid at the rate of 15,000 francs (\$3,000) a year. The Presidents of the two Chambers each receive in addition 72,000 francs (\$14,500) a year for the expense of entertainment. Members of both Chambers travel free on all railways on making a small annual payment.

The *colonies* are regarded as being politically part of France, and are represented in the Senate by four Senators and in the Chamber by ten Deputies.

FRENCH COLONIES

DEPENDENCIES	DATE OF ACQUISITION	AREA (sq. miles)	POPULATION
<i>Asia</i>			
French India	1679	200	277,700
French Indo-China	1861-92	309,979	16,600,000
<i>Africa</i>			
Algeria*	1830-1902	221,947	5,563,828
French Morocco	1912		
Tunis	1881		
French West Africa:			
Senegal	1893		
French Guinea	1843		
Ivory Coast	1843		
Dahomey	1893		
French Sahara	1880		
French Equatorial Africa	1884		
French East Africa:			
Madagascar	1643-1896		
Somali Coast	1864		
<i>America</i>			
St. Pierre and Miquelon	1635		
Guadeloupe	1634		
Martinique	1635		
Guiana	1626		
<i>Australasia</i>			
New Caledonia	1854-87	7,200	50,500
Society Islands	1841-81	8,378	81,100
Total		4,395,224	62,950,278

*Algeria forms an integral part of France, under a governor-general.

GERMAN EMPIRE

(See Map, p. 41)

The present German Empire (*Deutsches Reich*) was launched only a generation ago; but in order to understand its present relations to neighbouring states we must take a glance backward. Just as France was foreshadowed in the kingdom of the West Franks in the division of Charlemagne's empire, so Germany was foreshadowed in the kingdom of the East Franks, which was the chief among the three kingdoms (see Map of the *Empire of Charlemagne*, p. 47). While in France the crown became a nucleus for the steady and solid growth of the kingdom, the Teutonic kingship passed from house to house until in 1273 it settled with the Hapsburgs. But in spite of occasional successes, the central power grew weaker and weaker, with the result that the constituent states were able to establish their virtual independence.

The sole political bond of unity was the Holy Roman Empire. Nominally this consisted of the kingdoms of Germany, Italy, and Burgundy; but actually the two latter fell away, and the idea of the kingdom became merged in that of the empire. Though nominally Roman, the Empire was actually German; but since the emperor was elected, the subordination of the various fiefs was only nominal. From 1438 to the end of the Holy Roman Empire in 1806 the House of Hapsburg was the dominate member of this loose confederation, and the Archduke of Austria, as the ruler of this house, was also the Holy Roman Emperor. Austria's future rival, Brandenburg, was one of the seven states, and not the most important, whose rulers had the right of electing the emperor.

The religious wars of the sixteenth and seventeenth centuries destroyed any possibility of establishing German political unity on the basis of the Holy Roman Empire; while they increased the power of the chief Protestant prince, the Elector of Brandenburg. The Duchy of Prussia, a fief of Poland, was acquired by inheritance in 1611, and the treaty of Westphalia in 1648 still further increased the growth of the Brandenburg domains. Under the Great Elector Frederick William I. (1640-1688), Brandenburg-Prussia became the dominate state in North Germany and the rival of Austria. In 1701 the elector (Frederick I. of the House of Hohenzollern) took the title of King of Prussia. The Rhineland territory was extended in 1702, 1707, and 1713; part of Swedish Pomerania was acquired by the treaty of Stockholm in 1720; Silesia was seized (in time of peace and in contravention of treaty) in 1740; the North Sea was reached by the acquisition of East Friesland in 1744, while Polish territory was seized in the partitions of that unfortunate country. The chief agent in this scheme of territorial aggrandizement was Frederick the Great (1740-1786).

Among the makers of the modern German national state an important place must be given to Napoleon. His reconstruction of Germany between 1800 and 1811, though resented by the Germans, swept away the three hundred little sovereignties that obstructed reform, and substituted a limited number of considerable states among which subsequent union was possible. After the fall of Napoleon another loose confederation was formed, with Prussia and Austria as rivals for its leadership. This rivalry led to the war of 1866, when Austria was defeated by Prussia and left the union. By the annexation of Schleswig-Holstein, Hanover, Hesse-Homburg, Hesse-Cassel, Nassau, and Frankfurt, Prussia united her separated territories and increased

her preponderance in Germany. In 1870-71 the Franco-Prussian war added Alsace-Lorraine; the North German Confederation was extended by the inclusion of the four South German States (Hesse-Darmstadt, Baden, Württemberg, and Bavaria); and the German Empire sprang into being as the predominant power in western Europe.

ANTI-PRUSSIAN SENTIMENT IN GERMANY.—Since Prussia became the dominant member of the German family of states, the overbearing attitude of her sons has antagonized the remainder of the nation.

With the blood of the conqueror flowing in their veins, with a history which makes them justly proud and conscious of superior prowess, the modern Prussian, both before and after the foundation of the empire of to-day, has shown a great knack of making himself offensive to the other Germans. The dislike felt for him in all non-Prussian lands is indeed very pronounced. No observant traveller understanding the language of the country can fail to notice that in Germany. The writer remembers that while on a trip through Bavaria, some few years ago, numerous instances of the feeling came within his ken. One old peasant in the environs of Munich, suspecting his questioner to be a "Preiss" (Prussian), refused point-blank the information sought, but on being assured that his suspicion was unfounded, became quite affable and communicative. At a theatrical performance in Munich, the audience hissed at the mention of the mere word "Prussia" in the play. Riding in railroad cars, the Bavarian fellow-passengers always behaved very distantly toward Prussians, whom they usually detect at once by their harsh and precise enunciation. Picking up at random a local newspaper in a Bavarian café, the eye lighted upon a satirical editorial aimed at Prussian self-sufficiency. In a Nuremberg restaurant, overhearing the conversation at a neighbouring table which was monopolized by jovial burghers of the town, one of them was heard to tell a story at the expense of his Prussian boarder, whereupon the others remarked in chorus, "What else can you expect of a conceited Prussian?" And so it went on throughout the whole trip. . . . While travelling in the Rhine country, the writer noticed that the inhabitants of the whole province, though politically forming part of the Prussian monarchy, invariably avoided calling themselves Prussians, but always spoke of themselves as "Rhinelanders," and in their casual remarks betrayed the same dislike and semi-contempt of "Prussians," meaning thereby, of course, the inhabitants of the old provinces of the kingdom. In Saxony the same fact may be noted, although the dislike is there largely mingled with a sentiment of fear. Whoever remembers how hard little Saxony has fared at the hands of Prussia, and how after the last dismemberment of that enlightened and charming country but a small fragment of its original self is left, cannot wonder at this mental attitude.

Go where you will, in fact, in all the non-Prussian districts of Germany, and you will discern a strong undercurrent of Borussophobia, and this extends even to the capital, Berlin. They call Prussia, half in jest and half in anger, "Der Hecht im Karpfenteiche"—*i. e.*, the pike in the carp pond, or the equivalent of an insatiable, conscienceless robber.¹

EVOLUTION OF GERMANY INDUSTRY.—What strikes us at the very outset in the evolution of German industry, says Professor M. Henri Hauser² of the University of Dijon, is the actual greatness of the phenomenon.

There is something impressive in the spectacle of this people, which forty years ago scarcely counted at all in economic geography, and yet had become on the eve of the

¹Wolf von Schierbrand, "Germany" (1902).²M. H. Hauser, in "The War of Democracy" (1917).

war one of the great forces of the world. With her 900 to 1,000 millions of foreign commerce Germany reckoned in the second rank of mercantile nations, after England. Outstripping England herself she had achieved the second place in the smelting and production of iron and the second also in the manufacture of steel. Her mercantile marine, inferior to ours [the French] in 1870, was in 1913 surpassed only by those of England and the United States. All this won our admiration. Are we to disavow the admiration we have expressed because Germany has dishonoured herself by crimes? No! For Frenchmen the truth is always the truth. History will certainly record the prodigious effort of will by which Germany, victorious on the battlefield, has won her place by main force in the economic world. I do not know whether it is true that Friedrich Karl said, on the night of the surrender of Metz: "We have just conquered in the military sphere: our task is now to fight and conquer in the industrial sphere." It matters little whether the words are apocryphal: they express a profound and symbolic truth, and admirably render the thought of an entire nation.

We do not hesitate then to recognize that the German people, since the foundation of the Empire, have given proof of remarkable qualities. First and foremost they have worked with intense energy, not with the feverish excitement which raises mountains in a few days, but with persistent and patient everyday labour, regular and methodical. Ostwald is right when he attributes to the Germans the faculty and genius for organization. They have carried to perfection the art of making use of men, of putting every man in his place and of getting the maximum of output from each individual. If the genius for great discoveries seems in recent times to have deserted Germany, the Germans are past masters in the application of the discoveries of science to industry. The statement has often enough been made: It is the union of the laboratory and the workshop which is the foundation of German wealth.

Side by side with the union between laboratory and workshop, it is necessary to call attention to the union between the office of the business director and the library of the economist, the geographer, and the historian. For the method which the Germans applied to the production of a new aniline colour they also carried into their search for commercial outlets, and their organization of channels of commerce. The German chemist and the German commercial traveller marched in step to the conquest of the globe.

CESSATION OF EMIGRATION.—The sudden increase in wealth resulted in the gradual disappearance of the rural population and the virtual cessation of emigration.

It is repeatedly stated that the Germans were forced into a policy of expansion and conquest by the increase in their population. This was indeed the excuse they put forward to justify their attempts to create colonies of settlement in Morocco and Asia Minor. A pitiless Malthusian law had forced them, it was said, to find for themselves a "place in the sun." Now there could be no idea more false than this of Germany as an over-populated country. It is quite true that since 1871 the population of the Empire has increased from forty to nearly seventy millions. It is quite true that in spite of a decline in the birth rate, the increase in the population of Germany was 800,000 a year: that is, 800,000 more births than deaths, 800,000 more mouths to feed. But this increase was far from being excessive, for every year 700,000 Slav labourers came in to work on the great estates of the east, not to mention the Italian, Croatian, Polish, etc., labour employed in towns, mines, and works.

As for German emigration it is no longer more than a memory. Between 1880 and 1883 it exceeded 200,000 a year; to-day it does not reach 20,000—much the same figure as our own [the French], and the French are regarded as a people who emigrate very little. The number of arrivals far exceeds that of departures; Germany has ceased to be a country of emigration and is becoming a country of immigration.

INDUSTRY AND WORLD-POLICY (*Weltpolitik*). The industrial state is "tentacular," that is, it is not bounded by

its frontiers but sends out its tentacles or ramifications into other countries, until the whole world becomes its field of operations. Such a state is in urgent need not only of capital but of raw material. When Germany entered the industrial lists she was regarded as a country rich in coal and iron. But though she has coal enough, her supplies of iron ore are no longer sufficient for her demands, and she has become more and more dependent on Sweden, Spain, France, and North Africa. In the same way the textile factories of Saxony and Silesia are dependent on Texas and Louisiana.

This intensive industrialism called for increased customers; and as the German people alone are not able to absorb the enormous output of the German factories, the outside world is looked to more and more.¹ Thus the industrial state is committed to a world-policy, and the strength of the Empire is placed at the service of the manufacturers. An increased export trade becomes necessary to provide interest for German capital, while the industrial classes have need of it to insure a full day's work and save them from starvation. That is why German socialism is imperialistic.

This fusion of *Weltpolitik* and business policy was peculiarly dangerous for the peace of the world. If imperialism, if the tentacular state, puts its strength at the disposal of manufacturing interests, the temptation is strong and constant to use this strength to break down any resistance which stands in the way of the triumph of these interests. If a crisis comes which causes a stoppage of work (there are sometimes 100,000 unemployed in Berlin) the neighbouring nation which may be held responsible for the crisis has reason to be on its guard. "Be my customer or I kill you" seems to be the motto of this industrial system, continually revolving in its diabolical circle: always producing more in order to sell more, always selling more in order to meet the necessities of a production always growing more intensive.

BERLIN.—Berlin, the capital of Prussia and of the empire, is the third largest city of Europe. Like other great cities, Berlin is the result of the welding together of a number of districts which sprung up from time to time around a common centre.

The capital of the new German Empire is made up of a network of broad, rectangular thoroughfares from three to five miles across, spreading over a sandy plain watered by a narrow winding stream and various canals.

In the heart of the city are a couple of islands, formed by two loops of the Spree, which were cut in bygone times for the defence of the city. Of these islands the larger is the original Berlin, while the smaller, where the Wendish settlers first raised their rude huts, is the ancient Köln.

From the Brandenburg Gate, the grand entrance to the city, the smaller island is reached across the wide statue-lined Schloss bridge which spans an arm of the Spree and meets Unter den Linden, the far-famed broad thoroughfare which bisects the western portion of Berlin. On this island stands the Schloss or Palace with its imposing northern front facing the spacious Lustgarten, which has been transformed from a swamp to a beautiful garden.

The cathedral, a colossal statue of Frederick the Great, the museum, and the royal mills are close at hand. Königsstrasse, running through old Berlin, is the commercial heart of the city and is the single street in the Prussian capital where one gets jostled by a crowd. The Exchange, Council House, court of justice, post-office, city prison, and headquarters of police are in this street.

The palace of the prince imperial, the arsenal, royal bank, mint, and telegraph-office are in New Köln, an extension across the Spree of the island of Köln.

¹"Germany—of this I am convinced—may in less than two centuries succeed in dominating (*beherrschen*) the whole globe (*Erde*), in part directly and politically, in part indirectly, through language, methods and Kultur, if only it can in time strike out a 'new course,' and definitely break with Anglo-American methods of government, and with the State-destroying ideals of the Revolution."—H. S. Chamberlain, *Politische Ideale* (Political Ideals), 1916.

With all its pretensions, it is easy to perceive that Berlin is a city made up of shreds and patches, like the Prussian monarchy itself, which has been augmented by alliances, purchases, seizures, and more often still by a fortunate sabre stroke, until the Hohenzollern motto, "From rock to sea," has realized itself to the full.

A French writer, with perhaps a little malice, observes: "There is something of the pirate in the Prussian. His country being too poor to support him, he is driven to take from others. War is for him a business."

Old Berlin is huddled away in the background of the brand-new splendour of the modern city, where the stuccoed buildings have risen at the word of command, and been constructed with an eye to effect. Ancient as Berlin claims to be, one seeks there in vain for monuments which serve as an expression of the grandeur of the past—for old castles, antique cathedral, palaces, and houses of the middle ages.

Wilhelms-strasse is another noted street, containing half a dozen palaces and many fine mansions. In the environs, barracks, beer-gardens, factories, gas-works, rifle-ranges, and cemeteries are mingled. Beyond lies the sandy plain of Templehof, where all the grand military reviews take place.

Perhaps the most striking feature in the outward aspect of Berlin is the collection of palaces, public buildings, and statues, pleasantly varied by trees and trim-kept flower-beds. Berlin, viewed in comparison with London or with Paris, has nothing imposing about it. The long, broad streets lack life. No surging crowds throng the footways, no extended files of vehicles intercept the cross traffic or deafen one with their heavy rumbling noise. And, until quite recently, the best Berlin shops would bear no kind of comparison with the far handsomer establishments in the English and French capitals.¹

EMBODIMENT OF HOHENZOLLERN CHARACTER.—As I drifted down "the Lindens" with the crowd, observes an American writer, the question arose whether this modern, militant city, with its zest in commerce and diplomacy, in art and science, were not in many senses an embodiment of the Hohenzollern character.

A Frenchman once declared that Prussia was born from a cannonball, as an eagle is from an egg. And indeed it would be hard to find another German city with so few old buildings as Berlin and so little atmosphere. A Strassburg cathedral, a market-place out of Danzig, a row of Hildesheim houses, or a Breslau Rathaus, would be as out of place here as in an arsenal. Most of the Berlin architecture has as much colour as a squadron of battleships in war-paint, and the little glamour to be found here is almost as well hidden as a pearl in a pile of oyster-shells. The city fairly bristles with weapons and militancy. Its statues, when they are not of mounted warriors with swords, or of standing warriors with spears, tend toward such subjects as Samson plying the jaw-bone of an ass, or hounds rending a stag.²

And thus Price Collier, his thoughts bent homeward:

Where in all Germany is there any modern sculpture to compare with our Nathan Hale, our Minute Man, and that most spirited bit of modern plastic art in all the world, the Shaw Monument in Boston? You cannot stand in front of it without keeping time, and here lips of bronze sing the song of patriotism till your heart thumps, and you are ready to throw up your hat as the splendid young figure and his negro soldiers march by—and they do march by!³

HAMBURG.—Hamburg is the great emporium of Germany, and is the second largest city in the Empire. It is one of the three Free Hanse Cities (the others being Lübeck, and Bremen), with a constitution and laws of its own. Hamburg is on the Elbe, and is sixty-five miles from Cuxhaven, to which port it is connected by rail.

Hamburg has a perfect technical equipment, permitting the most expeditious, the smoothest possible passage of freight between sea and inland carriers. It has a network of waterways at its command and a railway system converging upon it from all parts of central Europe. Steamship lines give it probably a larger number of direct connections with foreign countries than any other port enjoys. Moreover, this equipment is utilized as it should be. Port and channel dues are low. There is a heavy use of the Elbe inland and good coöperation with it on the part of the railways. The latter give their lowest tariffs to aid Hamburg against its foreign rivals or to further German exportation.

The Germany of to-day is unthinkable without Hamburg, which is the symbol of German persistence, thoroughness, care of details, appreciation of opportunity, and nice adaptation of the means to the end in view.¹

BEER INDUSTRY.—The manufacture of beer is one of the leading German industries. In Bavaria, the chief centre of the industry, the consumption is more than fifty gallons *per capita*. In the city of Munich the consumption exceeds seventy gallons, which means one and a half pints a day for every man, woman, and child. An American traveller gives us an amusing picture of this national custom:

I have come to the conclusion that the Germans love beer. I arrived at this conclusion immediately on reaching German soil. The moment I crossed the frontier from wine-drinking France I smelt hops, and I have smelt hops ever since. The German atmosphere I find is thoroughly impregnated, go where you will, with the aroma from beer shops and breweries, and there is no denying the fact that the two great industries of the German nation are hop raising and beer drinking, the women attending to the former and the men to the latter.

In my innocence I once thought that beer drinking in England was carried to excess, but I was mistaken. Englishmen, as yet, are in the infant class—in the A B C's—in acquiring a German's education in the practice of beer drinking, and stowing away under their vests such vast quantities of the extract of hops. Every little village and every city, large and small, throughout Germany is full of an indefinite number of buildings which are devoted to the sale of beer or its manufacture. Beer shops are on the corners of all the streets, they are round the corners, they are next door and over the way, they are on opposite sides of the streets, they are in the basements or the attics, they are at the end of every dark lane and disreputable alley, and those that are not above ground are under ground; in fact, beer shops are everywhere.

The German begins drinking beer early in the morning. Before he takes his coffee he swallows a few glasses to counteract the effect of the beer of the day previous. In place of coffee he takes beer again, which he stows away as a foundation on which to build the day's work in beer drinking. During the forenoon he has not fingers and toes enough to tally the number of glasses that it takes to give him an appetite for his dinner.

Up to this time it has been mere child's play—just practising the scales, as it were—to keep his throat pliable. In the afternoon he gets decidedly thirsty, and he makes a business of beer drinking; he "wades in," so to speak, and the number of glasses that he consumes by twelve or one o'clock at night would be as difficult to count as a shower of shooting stars.

I don't wish to overdraw the picture or paint it in false colours. I wish it merely to be understood that the Germans, as a race, are very fond of beer, and that they drink a great deal of it.²

THE THREE LOVES OF GERMANY.—What are they? Martin Luther's "wine, woman, and song" (*Wein, Weib, und Gesang*) will probably suggest themselves first; but in the opinion of a transatlantic critic they are "music, beer, and sauerkraut."

¹H. Vizetelly.

²R. H. Schauffler, "Romantic Germany" (1909).

³Price Collier, "Germany and the Germans" (1913).

¹Edwin J. Clapp, "The Port of Hamburg" (1911).

²Henry Ruggles, "Germany Seen Without Spectacles" (1883).

There are three things the Germans are intensely fond of—music, beer, and sauerkraut; there is no denying this fact. I hesitate which to put first on the list as their special favourite. I think if a German was asked which his heart or inmost soul craved most he would be a long time in making up his mind, and finally be obliged to answer, "Alle drei,"—all three. In journeying through the country the traveller is constantly butting against positive proof wherever he goes that these triplet favourites have a tenacious hold on the national heart, and that the love of each is part of the German nature. He is convinced of the fact through the organs of hearing, seeing, and smelling. Go where he will, he hears music—splendid music, too; and in every city, village, town, and hamlet, wherever his footsteps or the railways carry him, he has abundant evidence that one of the principal occupations of the people, man, woman, and child, is beer-drinking.

As for sauerkraut, the abominable smell of it while undergoing the cooking process greets his nose in the majority of German houses, hotels, and pensions.

One of the chief delights of German travel is the enchanting music for which Germany is noted, and which one encounters in every part of the country; but the disagreeable part of travel is the unearthly, indescribable odours arising from the constant cooking in various ways of the national vegetable, the cabbage.

The odour from the cooking of cabbage in its natural state is endurable and Christian compared to the cooking of sauerkraut. About the latter there is a mixture of barbarian, Oriental, and menagerie smells that makes one imagine that he is in one of the resurrected graveyards or tombs of the ancient Egyptians. I do not wish to overdraw the picture or magnify the quality of this national odour; I am stating the impression it makes on strangers generally, and especially on Americans, when they first travel through the country, and stumble on it at every street-corner and in every house they enter. Fortunately for those who remain in Germany any length of time, this peculiarity of the atmosphere gradually dies away, and in a few months or years they become so thoroughly Germanized that they fail to detect anything more unpleasant from the perfume of a dish of sauerkraut than they would from a bouquet of the choicest flowers.¹

AMBER FISHERS OF THE BALTIC.—The Samland, equidistant from Danzig and Memel, is the California of East Prussia, and along the coast there for more than thirty centuries the bulk of the amber supply of the world has been obtained. Twenty or thirty feet beneath the sand dunes, and extending to the ocean floor, are veins of "blue-earth," in which the yellow and yellow-brown masses are embedded, so that amber can be mined as well as fished.

The slow sinking of the sea-level and the action of tide and storms help to free the amber, so that it is easier to fish than to dig for it. The right to fish belongs to the coast villages, and in some cases to the government.

Amber fishing is no child's play, for the fishers either work shoulder deep in the water, while the chilling spray dashes over them, or they spend five hours a day in the sea-bottom in heavy diving armour while the air above is at freezing temperature.

After a storm the men work among the surf with forks and hand-nets, to poke out and detach from the seaweed any loose pieces which they pass to women who stand as near as they can to the water. But the largest and finest blocks are rolled about on the sea-floor and remain behind.

These are sought among the shallows by men in boats when the water is clear. On certain reefs trained divers are at work in specially made diving dress, which allows them to lie down and work like a collier, loosening the blocks on the sea-floor.

When gathered, the amber is sorted according to colour and size. Pale pieces go to Turkish pipe-makers; light-coloured and veined slabs are sent to Italy; the dull yellow

pieces go to the South Sea and Africa. The ordinary qualities go mostly to Leghorn and Venice. In return, the Baltic provinces import the red coral from the Adriatic, for a string of coral beads is considered a necessary part of a Polish bride's outfit.¹

SYNOPSIS OF THE GERMAN EMPIRE

(See Map, p. 41)

The German Empire occupies the centre of Europe and comprises four kingdoms, six grand duchies, five duchies, seven principalities, three Free Cities, and one imperial territory (Alsace-Lorraine, taken from France in 1871). It is bounded by Russia on the east; Austria and Switzerland on the south; France, Holland, and Belgium on the west; and the North and Baltic Seas and Denmark on the north. Three of the frontiers are indicated by artificial boundaries; the southern one is formed by Lake Constance and the mountains which stretch eastward from it.

STATES OF THE GERMAN EMPIRE

STATES	DESIGNATION	CAPITAL	AREA (sq. miles)	POPULATION
PRUSSIA	Kingdom	Berlin	134,664	40,165,219
BAVARIA	Kingdom	Munich	29,293	6,887,291
SAXONY	Kingdom	Dresden	5,789	4,806,661
WÜRTTEMBERG	Kingdom	Stuttgart	7,532	2,437,574
BADEN	Grand Duchy	Karlsruhe	5,819	2,142,833
HESSE	Grand Duchy	Darmstadt	2,968	1,282,051
MECKLENBURG-SCHWERIN	Grand Duchy	Schwerin	5,068	639,958
SAXE-WEIMAR	Grand Duchy	Weimar	1,394	417,149
MECKLENBURG-STRELITZ	Grand Duchy	Neu-Strelitz	1,131	106,442
OLDENBURG	Grand Duchy	Oldenburg	2,482	483,042
BRUNSWICK	Duchy	Brunswick	1,418	494,339
SAXE-MEININGEN	Duchy	Meiningen	953	278,762
SAXE-ALTENBURG	Duchy	Altenburg	511	216,128
SAXE-COBURG-GOTHA	Duchy	Coburg and Gotha	763	257,177
ANHALT	Duchy	Dessau	888	331,128
SCHWARZBURG-RUDOLSTADT	Principality	Rudolstadt	363	100,702
SCHWARZBURG-SONDERSHAUSEN	Principality	Sondershausen	333	89,917
WALDECK	Principality	Arolsen	433	61,707
REUSS-GREIZ	Principality	Greiz	122	72,769
REUSS-GERA	Principality	Gera	319	152,752
SCHAUMBURG-LIPPE	Principality	Bückeburg	131	46,652
LIPPE	Principality	Detmold	469	159,937
LÜBECK	Free City	Lübeck	115	116,599
BREMEN	Free City	Bremen	99	299,526
HAMBURG	Free City	Hamburg	160	1,014,664
ALSACE-LORRAINE	Reichsland*	Strassburg	5,607	1,874,014
Total			208,825	64,925,993

*"Imperial Land" under a Statthalter or governor.

CLIMATE.—The climate varies in different districts according to altitude, latitude, and proximity to the sea; but it is generally of a "continental" character, and subject to extremes of heat and cold. The Rhine Valley enjoys the mildest temperature; the lower plains of Prussia, and especially the eastern regions, are very cold, damp and bleak in winter, but hot and dry in summer. The highland districts of Bavaria, Württemberg, Baden, etc., are extremely cold in winter, but genial in summer. The mean annual temperature of southwestern Germany, or the Rhine and Danube basins, is about 52° to 54°F., that of central Germany 48° to 50°F., and that of the northern plain 46° to 48°F. In Pomerania and West Prussia it is only 44° to 45°F., and in East Prussia 42° to 44°F.

In regard to rainfall, Germany holds a middle position between the humidity of northwest Europe and the aridity of the east. The rainfall is greatest in the Bavarian table-land and the hilly regions of western Germany. See *Climate Map of Europe*, pp. 24, 25.

NATURAL PRODUCTIONS.—(1) *Agriculture.* One fifth of Prussia is unproductive, and consists of marshes, swamps, heaths, and sandy wastes. The most unfruitful districts are in the provinces of East and West Prussia, Pomerania, Brandenburg, Silesia, and Hanover. About one fourth of the empire is covered with woods and forests, which yield valuable timber. The forests also give rise to local industries such as clock and toy making by the peasants of the Vosges and Black Forest, and the burning of charcoal for fuel for the factories of Silesia.

Potatoes and *rye* are extensively grown, and form the chief food of the people. A relatively greater area is devoted to the cultivation of the potato than in any other country; it is twice the proportion found in Ireland. The potatoes are also used for making brandy and other spirits; this is also one of the purposes to which the *sugar beet* is put, especially in the centre and northeast of the country. *Oats* and *wheat* are also largely grown. In Saxony and Silesia *flax* ranks next in importance to the sugar beet. *Hops* are grown principally in the south, especially in Bavaria. The *vine* is cultivated in the plain of the Upper Rhine, and on the terraced slopes of the tributary valleys. *Fruit* and *tobacco* are also grown in the same region.

(2) *Cattle and sheep farming.* Most *sheep* are raised in the north of Prussia, but the finest wool comes from Saxony and Silesia. The number of sheep now raised is not so great as it was thirty years ago. On the other hand the raising of *pigs* has increased at the same rate as sheep rearing has diminished. *Cattle rearing* has also increased; it is the leading industry of Schleswig-Holstein. *Horses* are raised for the army in East Prussia.

(3) *Minerals.* The production of *coal* is exceeded only in the United States and Great Britain. The three chief coal-fields are in the Ruhr Valley in Westphalia, Upper Silesia, and Saxony. *Lignite* is also mined. *Iron ore* occurs in the same districts as the coal, thus fixing the sites of the great

¹Henry Ruggles, "Germany Seen Without Spectacles" (1883).

¹Adapted from the London Standard.

metal-working and manufacturing towns. *Silver* is produced in Saxony in the Harz Mountains. *Zinc* is produced in Upper Silesia and the vine district. The Harz and the Erzgebirge also contain ores of *copper*, *lead*, and *tin*, besides great quantities of *potash salts*. On account of this mineral wealth, there are a number of chemical works at Stassfurt. *Salt* is worked in many parts of the country.

MANUFACTURES.—Iron and steel rank first, then textiles, glass (especially scientific apparatus), porcelain, and paper. In the production of chemicals, dyes, and drugs Germany leads the world. Shipbuilding is carried on at Hamburg and at most of the Baltic ports.

Germany is becoming more and more a manufacturing country. About 37 per cent of the population are supported by industry and mining, 33 per cent by agriculture, and 12 per cent by trade and traffic. Germany supports about nine-tenths of her population by her own produce.

CHIEF CITIES AND INDUSTRIES OF GERMANY

CITY	POP. IN THOUSANDS	STATE	PRINCIPAL INDUSTRIES
AACHEN	156	Prussia	Zinc, metal goods, machinery, chemicals, woollens.
ALTONA	173	Prussia	Tobacco and cigars, machinery, woollens, cottons, chemicals.
BARMEN	169	Prussia	Silks, cottons, woollens.
BERLIN	2,071	Prussia	Metal goods, machinery, woollens, chemicals, tobacco, porcelain, sewing machines, carpets, silks, cloth, soap, lamps, china, furniture, gloves, buttons, breweries, books, electrical plant.
BIELEFELD	78	Prussia	Cottons, linens.
BOCHUM	137	Prussia	Iron and steel, coal mining, carpets, brickworks, breweries.
BREMEN*	247	Bremen	Shipbuilding, engine building, rope making, tobacco, distilleries, sugar refining, rice shelling.
BRESLAU	512	Prussia	Woollens, linen.
BRUNSWICK	144	Brunswick	Machinery, pianos, preserves, chemicals, beer, books, sausages.
CHARLOTTENBURG	306	Prussia	Iron works, porcelain.
CHEMNITZ	288	Saxony	Cottons, woollens, metal goods.
COLOGNE	517	Prussia	Beet sugar, chemicals, perfumes, leather.
CREFELD	129	Prussia	Silks, velvets, dyeing, engineering, chemicals, soap, distilleries, tanneries.
DANZIG	170	Prussia	Shipbuilding.
DORTMUND	214	Prussia	Breweries, iron and steel, machinery, sewing machines.
DRESDEN	548	Saxony	Porcelain, photographic materials.
DUISBURG	229	Prussia	Copper, steel, brass, chemicals, shipbuilding, tobacco, cotton, sugar, soap.
DÜSSELDORF	359	Prussia	Silks, cottons, coal.
ELBERFELD	170	Prussia	Silks, woollens, cottons.
ESSEN	295	Prussia	Iron and steel, machinery; (Krupp works).
FRANKFURT AM MAIN	415	Prussia	Chemicals, leather; (celebrated fair).
GELSENKIRCHEN	170	Prussia	Coal, iron, steel, soap, glass, chemicals.
HALLE	181	Prussia	Salt, sugar refining, machinery, distilling, coal mining, dyeing, oils.
HAMBURG*	931	Hamburg	(Chief distributing centre for Middle Europe.) Provisions, breweries, distilleries, mineral waters, textiles, tobacco, cigars, machinery, chemicals, oils, soap, celluloid, leather.
HANOVER	302	Prussia	Cotton spinning, iron foundries, chemicals, tobacco, cigars.
KARLSRUHE	134	Baden	Machinery, engineering, and iron.
KIEL	212	Prussia	(Chief naval port.) Shipbuilding, iron foundries, flour mills, oil works, saw mills, breweries, soap, fish curing.
KÖNIGSBERG	246	Prussia	Amber.
LEIPZIG	590	Saxony	(Centre of German book trade.) Type-founding.
LÜBECK*	99	Lübeck	Breweries, distilleries, saw-mills, shipbuilding, fish-curing, machinery, engines, bricks, resin, preserves, furniture, soap.
MAGDEBURG	280	Prussia	Beet sugar, machinery, woollens, linens.
MANNHEIM	194	Baden	Chemicals, wines.
MEISSEN	34	Saxony	Porcelain.
MÜLLHAUSEN	95	Alsace-Lorraine	Cottons, metal goods.
MUNICH	596	Bavaria	Breweries.
NÜREMBERG	333	Bavaria	Watches, clocks, trinkets, gold and silver repoussé work.
POSEN	157	Prussia	Machinery, furniture, sugar, milling and brewing.
POTS DAM	62	Prussia	Woollens.
RIXOORF	237	Prussia	Linoleum, furniture, cloth, pianos, beer, soap.
SCHÖNEBERG	173	Prussia	Railway plant, cigars, paper, soap, chemicals.
SOLINGEN	51	Prussia	Cutlery.
STETTIN	236	Prussia	Shipbuilding, distilleries, potteries, and engineering works.
STRASSBURG	179	Alsace-Lorraine	Breweries, leather, hops, chemicals.
STUTTGART	286	Württemberg	Musical instruments, hosiery.
ZWICKAU	74	Saxony	Coal and iron, woollens.

*Free Hanse Cities.

CAPITAL—Berlin, on the Spree. Population 2,071,257.

CHIEF PORTS.—Hamburg, the principal trading harbour on the continent, Bremen, Stettin, Lübeck, Danzig, and Königsberg. Wilhelmshafen on the North Sea, and Kiel on the Baltic are naval ports. The Baltic is not navigable in winter on account of the ice, but some of the Baltic harbours remain open in mild winters.

COMMERCE.—German trade policy is that of protection. The *Zollverein*, or customs league, applies to all parts of the empire (as well as Luxemburg) except a small portion of Hamburg which retains its own privileges but practically forms a vast bonded warehouse. The *Zollverein* establishes free trade among the several German states and a common tariff on imports, exports, and goods in transit. On account of the difficulty of transit in

some parts of Germany and the number of foreign countries it touches, one part of the country often exports produce that another part needs to import; e. g., North Germany exports wheat, while Bavaria imports it.

The foreign commerce resembles somewhat that of the United Kingdom, for in the imports food supplies and raw materials are of more importance than manufactures. Germany, however, is not so dependent as Great Britain upon foreign supplies of food, the chief articles needed being wheat and barley. The bulk of the outward trade is in manufactured goods, iron and steel goods and machinery coming first, followed by cottons and woollens.

The principal foreign trade is done with the United States, the United Kingdom, Russia, and Austria-Hungary.

With the United States.—Germany receives from the United States large supplies of cotton and cotton manufactures, copper, iron and steel manufactures, leather, meat and dairy produce. In return, Germany sends to the United States chemicals, drugs and dyes, fertilizers, fibres, and various textile and other manufactured goods.

CHIEF IMPORTS.—Corn, groceries and food products, wool and woollens, cotton and cottons, ores and precious metals, earths, chemicals and drugs, wood, hides and skins, oils and fat, animals and animal products, silk and silk goods.

CHIEF EXPORTS.—Iron and steel goods, machinery, textiles, chemicals and drugs, earths, ores and cotton manufactures, hardware, groceries and food products, clothing, fancy goods, silk and silk goods, literary and art objects.

COMMUNICATIONS.—The total length of the railroads in the empire is about 13,000 miles, of which about 92 per cent belong to the different states. There are 1,500 miles of inland canals, and 1,600 miles of ship canals. Berlin is the centre of the railway system. The great railway routes from western Europe to northern Germany and to all parts of Russia and to the central part of the northern plain by the Westphalian Gate, pass through Hanover to Berlin, and there diverge to the northeast by Königsberg to Petrograd, to the east by Warsaw to Moscow, and to the southeast by Breslau to Odessa. The most important lines in the south are those following each bank of the Rhine from Cologne to Basel on the Swiss frontier, the outlet of the Westphalian manufacturing district, to Italy through Switzerland and the St. Gothard tunnel.

GOVERNMENT.—According to the constitution of April 16, 1871, all the states of Germany form an eternal union; the direction of political and military affairs is vested in the Emperor, who may declare war, but if it is not defensive, the consent of the Bundesrat, or Federal Council, is required. The Imperial army is under the supreme generalship of the Emperor, and there is a minister of war for each of the four kingdoms—Prussia, Bavaria, Saxony, and Württemberg—the Prussian war minister being also minister for the smaller states. The legislative functions of the empire are vested jointly in the Reichstag and the Bundesrat, and the Emperor has no veto on laws passed by these bodies. All laws for the Empire must receive the votes of an absolute majority of the Bundesrat and the Reichstag, and to take effect must be promulgated by the Emperor.

The Bundesrat, which represents the individual states of the empire, as the Reichstag represents the German nation, consists of sixty-one delegates, appointed by the governments of the individual states for each session. Of these, 17 sit for Prussia, 6 for Bavaria, 4 each for Württemberg and Saxony, 3 each for Baden, Hesse, and Alsace-Lorraine, 1 each for Mecklenburg-Schwerin and Brunswick, and 1 each for the remaining states, including Hamburg, Lübeck, and Bremen. The Bundesrat is mainly a confirming body, although it has the privilege of rejecting measures passed by the Reichstag. It has also a limited initiatory power, which it occasionally exercises. Members of the Bundesrat have the right of appearing in the Reichstag, and of speaking on any question in which the state they represent is directly interested. Members of the one chamber, however, are not eligible for election to the other, although they may sit in their respective provincial diets.

The Reichstag is composed of 397 members, elected by universal suffrage and ballot for the term of five years. Of these 236 constitute the elected of Prussia, 48 represent Bavaria, 23 Saxony, and the remainder the other states in due proportion, ranging from 1 to 17. Members are now paid \$750 per session with a deduction of \$5 for each day's absence.

GERMAN COLONIES

The German colonies and dependencies at the beginning of the Great War in 1914 had a total area of 1,134,046 square miles, with a population of about 12,969,300 of whom 24,170 (including garrison and police) were whites. Of these whites about 18,500 were settled Germans. The whole of these possessions were captured and occupied by the Allies within the first two years of war, with the exception of part of the difficult hinterland of German East Africa.

DEPENDENCIES	DATE OF ACQUISITION	AREA (sq. miles)	POPULATION
<i>Africa</i>			
Togoland	1884	33,659	1,000,000
Kamerun	1884	295,000	3,500,000
German Southwest Africa	1884-90	322,348	120,000
German East Africa	1885-90	384,079	7,645,000
<i>Asia</i>			
Kiauchau*	1898	2,750	84,000
<i>Pacific</i>			
German New Guinea	1885-86	90,000	463,300
Solomon, Caroline, Pelew, Marianne, and Marshall Islands	1886-99	5,160	122,000
Samoa	1899	1,050	35,000
Total		1,134,046	12,969,300

*Kiauchau was leased for a period of 99 years from China. The area of the leased territory and sphere of interest is 2,750 square miles; the area of the district proper is 193 square miles. The leased territory consists of the bay up to high-water mark, its islands, and the north and south tongues of land at the mouth of the harbour.

RUSSIA

Revolution March 8-16, 1917; Republic Formally Proclaimed September 14, 1917

Russia like France has grown outwards by expansion from a single centre. The Russian power that arose in the forest region and centred at Moscow gradually extended over the great plains. This steady expansion, down her great rivers and toward the sea, has been facilitated by the decline of the empires of Sweden, Poland, Turkey, Persia, and China. The absence of natural barriers has prevented the growth of strong local differences and enabled the autocratic central authority to impose its will upon every part. On the other hand, the relative isolation of Russia has contributed to a degree of civilization much less advanced than obtains in western Europe. To get into touch with the western states Peter the Great (1682-1725) founded the present capital, Petrograd, at the mouth of the Neva.

In the east and south the impossibility of drawing any permanent frontier has brought Russia up to the confines of Japan, China, and the buffer states of India, and threatens the independence of Persia. In the west, Finns, Poles, Roumanians, and Jews (see *Racial Map of Europe*, p. 22) constitute elements which Russia has failed either to assimilate or conciliate. What the Empire failed to accomplish may find solution under the Republican government which was established in March, 1917. The independence of Poland and Finland, either relative or absolute, may be looked for as an outcome of the Great War and of the Russian Revolution.

THE COSSACKS.—The Cossacks have played an important rôle in Russian history. The fate of the empire has often rested in their hands. It has been for them to decide whether an invading Tatar or Turkish host should be hurled back or reinforced, whether the Czar should be supported or kept in check.

The origin of the Cossacks is obscure. Intrepid adventurers, they spread from the Dnieper all over Eastern Russia. To the Cossacks of the Don (the most powerful tribe), Russia virtually owes her vast Siberian possessions. Long they resisted the Russian suzerainty, till the government had the inspiration of enlisting their warlike qualities and their incomparable horsemanship in the service of Russia. The Cossacks to-day supply the Russian army with a cavalry that is unrivalled in Europe.

The Cossacks do not form a regular army and in their social life they preserve many customs reminiscent of their ancient privileges. They do not pay the same taxes as the Tsar's other subjects, they do not draw lots for military service, but undertake to provide a certain number of horses and men, either for service on the Russian frontiers or in the interior. With the exception of the colonel, appointed by the minister of war, the Cossacks have the right to elect their own chiefs.

The Cossack has to provide his own horse and arms, but in consideration of this receives from the Government a plot of land, which is increased at the birth of each son. The customs, tastes, and habits of these adventurous nomads have not been modified by contact with civilization. The Cossack's life is passed entirely out of doors; he returns home only at rare intervals to have an orgy of vodka.

In Cossack towns and villages the only permanent population is composed of women, children, and old men; for while he has the strength, whatever his age, the Cossack prefers life in the open, and as soon as a boy is old enough to sit on a horse, his father puts him into the saddle and sets him galloping, while his mother from the door of the *isba* (cottage) encourages the small cavalier. While the Cossack

hunts in time of peace, or fights in time of war, the women keep the *stanitsa* (village), take care of their houses which they keep scrupulously clean, feed their cattle, cultivate the soil, in fact do all the laborious work of agriculture. These rough labours age them before their time, but do not damp their energy and activity. A wife is no longer the timid, trembling slave of her husband, as Gogol has painted her.¹

STRANGE CUSTOMS IN LITTLE RUSSIA.—The Little Russians are more truly Slavs than the Great Russians; there is less Finnish blood in their veins. The peasants are taller and more robust. Many of the peasant customs are of peculiar interest to the Western visitor.

They have a queer custom that a woman may do what she likes on a Monday, and, sad to relate, many of them spend that day in gossiping and drinking vodka in the taverns. . . . The door of a bad woman is tarred that she may feel herself in disgrace. In the winter evenings the younger women gather together to sing and work. A proverb warns the young man in search of a wife to choose with his ears rather than with his eyes. A child is swaddled carefully with red and black bands as soon after its birth as possible, with the idea that these will keep the devil from getting into the infant; this notion is peculiar to the peasants of Little Russia. When some one has died in the house a glass of water is placed in the window, that the spirit may wash itself in departing. A neighbour digs the grave, and is rewarded for this friendly service by a seat at the funeral repast. The dead person is carried out of the house feet foremost, so that he may not return. Formerly women were hired to wail, but that custom has been given up. Every girl has her wedding-dress got ready as soon as she is considered old enough to be married, and if she dies before her wedding it becomes her shroud. Every guest on returning from a funeral must go up to the stove and touch it with the right hand.²

PETROGRAD AND ITS WORKMEN.—As in most large cities, the growth of the population of Petrograd is mainly due to the influx of the rural element. There is also an annual migratory movement in connection with Petrograd that is peculiar. It is estimated that some 100,000 workmen of the peasant class come into the city regularly every spring and leave it every autumn. These are the bricklayers, masons, carpenters, and other artisans, who come to work on new houses and to repair old ones, which in many cases have suffered from the severities of the northern winters.

They may be seen any summer evening tramping in straggling crowds along the main thoroughfares, going to their short night's rest in holes and corners which serve them as lodgings in the densely populated wards. Or glimpses of them may be had through the windows of *traktirs*, or tea-houses, where these workmen sip weak tea and listen to the gramophone. As a rule, the police keep them to the roadways, when they appear in any numbers, on account of their clothes, which are often mere rags covered with the dirt of their work, and perhaps also because of the unpleasant odour from Russians of this class. It occasionally happens that perfumes have to be used after them in rooms and palaces, especially in winter, when it is too cold outside to air the apartments by opening the windows.

And yet the Russian workman, in one respect, is very clean. He generally goes once a week to a public bath, where he scalds himself in the steaming chamber, and he may also have his body thrashed with birch twigs until his skin becomes the colour of a boiled lobster. This is a kind

¹A. S. Rappoport, "Home Life in Russia" (1913).

²Annette M. B. Meakin, "Russia Travels and Studies" (1906).

of massage, of very ancient origin, and peculiar to Russia in combination with the popular bath. The only objectionable circumstance is that the peasant or labourer wears the same clothes until they get too dirty, and somehow or other he cannot be induced to keep them the least bit clean.

As the workmen trudge to and from their occupations many of them may be seen carrying in their girdles their beloved axes, the favourite Russian implement, with which a peasant can make almost anything in wood without any other tool, from a log hut down to a child's toy. Being a denizen of a woody country, the Russian is naturally skilful in all manner of practical woodwork. The writer has seen a perfectly going wooden watch made by a Russian peasant, with the mechanism all of wood excepting the springs.

The nomadic character of a great many of these "hewers of wood and drawers of water" may be verified by a visit to any one of the four big railway stations late in the autumn, when large crowds of rough and grimy peasants day after day besiege the ticket offices, and sit about for hours on their dirty bundles, waiting for cheap trains to take them back to their villages.¹

A RUSSIAN FAIR.—The scene is a curious one; hundreds of light carts, or *telegues*, are lined up on either side of the road, others left outside the houses; they obscure the view, block up the way, and are altogether a nuisance. The unharnessed horses peacefully eat out of the carts; there are the same number of carts as of families, no one comes to the fair on foot. In the intervals of driving a bargain, the men splash about in a little river which runs across the village; a cloud of dust hangs over the whole picture, shutting out the rays of the sun.

There is no very original merchandise to be bought in this dusty market—earthenware vessels, narrow-necked milk jugs, green polished bowls, and various articles in cut wood and horn more or less coarsely fashioned. What principally strikes the visitor are the large stacks of dry fish which people buy and eat as we eat cakes.

Beer and vodka are sold in the taverns, and the yellow kvass is drunk all over the country. The *kvass* is a kind of household drink, which every housewife prepares according to her special recipe. Napoleon's soldiers, if we are to believe Tolstoi, called it pig's lemonade. Kvass is made of various herbs and grain distilled in hot water. Sometimes it has a bitter taste, sometimes sweet; in any case it is very refreshing, and a favourite drink in Russia.

Here and there groups of hideous-beggars of both sexes, dirty, ragged, and sinister looking, crouch in the dusty road in rings, chanting monotonous litanies in piercing tones. Money pours into their hats and aprons. The crowd circulates in high good humour, elbowing each other in the broiling sun; laughing, chatting, and nibbling sunflower seeds, without ceasing. Some of them sample the pastries which the salesmen fry in the open air. It is a real type of Russian fair, a dirty, good-humoured, evil-smelling crowd, containing an amazing number of drunkards.

The men wear pink or scarlet blouses; the women are dressed from head to foot in startling colours, red, violet, blue, yellow, a mixture dazzling to the eyes at close quarters, but seen at a distance, through the haze, the result is a charming contrast to the gray landscape.²

A MOUJIK'S COTTAGE.—The *isba*, or wooden cottage of the Great Russian peasant, is built usually of timber, with two or three windows all in a row, facing the village street, and a pointed roof. A generation back a chimney was an innovation hardly thought of, but now almost every *isba* is provided with one. The peasants were very slow to understand that an outlet for the smoke from the stove could be so built as not to conduct a current of freezing winter air into the room.

The roof is of planks, in parts where these can be cheaply obtained. . . . The outside cornices, windows, and window-shutters, are ornamented with carved woodwork, more or less profuse, according to the taste and pretensions of the owner. The interior consists of one living-room with a loft above it, and a storeroom; the living-room is about fifteen feet square, and exactly one quarter of it is filled by the huge brick or clay stove. A peasant in the government of Novgorod told me he kept a little fire in his stove all through the summer to keep the walls dry. The oven is so commodious that it is often made to do duty as a steam bath. The whole family—father, mother, and children—take what we should call a Turkish bath in it every Saturday, in those villages that are not provided with a public bath.

"Yes, that is where we bake our bread, and where we bathe," said one woman, with a pleasant smile, as she opened her oven door and let me look in. "When it is very cold we sleep on the top," pointing to the flat surface of the stove, "but in warm weather we sleep here," and she pointed to a very narrow bench made of two or three planks which ran round the sides of the room; it was narrower than the seat of a railway carriage.

In winter, if they let the icy air into their *isba* but for a minute, they must put more wood into the stove. When a whole family and two or three animals pass the nights, and most of the days, of a six months' winter, in one room, of which the windows are hermetically sealed, the result can be better imagined than described. The calf, the lambs, the fowls, cannot bear any intense cold any more than their masters; they too must share the genial warmth given out by the giant stove.

In the *isba* above described, the coil of iron, from one end of which a cradle was suspended, was like the closely-coiled body of a snake, in eight or nine circles, each of which was about as thick as a man's little finger, and the cradle hung from it like a child's toy at the end of a piece of elastic; the slightest touch of my hand set it gently bobbing up and down like an air balloon. Such a coil is in great request wherever a new baby appears upon the scene, and the village blacksmith always keeps a store of them ready for sale; they seem to be an invention peculiar to the Russian peasant.¹

SUPERSTITIONS.—The moujik is most superstitious and has a deep-rooted belief in witchcraft.

In times of epidemic, such as of cholera or typhoid fever, the widows and young girls of a village, after a secret conference, assemble late at night at the far end of the village dressed only in chemise and waistbelt and with hair hanging loose. They take with them a plough. The idea is to plough the earth round the village to prevent infection.

The procession is opened by a young girl bearing an icon, surmounted by a candle; she is followed by another harnessed to a plough, which other women push behind to help her. A third girl follows, cracking a whip without ceasing—this is to drive away the epidemic, personated by the devil.

All are armed with pokers, brooms, and sticks. They chant prayers in loud tones, and lower their voices in passing an *isba* (cottage), so as not to be heard. Woe to the curious who would assist at this spectacle; if he is discovered he runs the risk of being torn to pieces. Usually the widows and girls preserve the profoundest secrecy as to the hour and day of the procession.

When illness breaks out, there is much superstition. Instead of going to some doctor the *snakhar* (wizard) is sent for, and only when his spells have had no success, and the invalid is worse, do they hasten to the doctor, and then it is generally too late.

For nothing in the world would a peasant work in the fields during Easter Week! For it is well known that wheat sown at Easter will not germinate. Then again, cabbages to be any good must be planted on Maundy Thursday. On certain days the peasant will break the ice to bathe because bathing on those days keeps you healthy all the year

¹G. Dobson, "St. Petersburg" (1910).

²A. S. Rappoport, "Home Life in Russia" (1913).

¹Annette M. B. Meakin, "Russia Travels and Studies" (1906).

round. And then again at Epiphany, when the cross is dipped into the water, they undress and throw themselves in, and then hurry home with a cask of water and warm themselves at the stove. The "Jordan" water must be taken care of and is a remedy against all illnesses, and if placed in the fields keeps away hailstorms. At the sound of thunder every one bathes, and he who will not go to the river or the stream at least washes at home. Pouring water from a milk-pail in which there is an egg, through a wedding-ring, signifies that he who washes remains healthy, and the cow gives much milk, and the hens lay many eggs. Peas are sown in those fields which lie near the road, so that passers-by may pick the young pods if they please, for God pays those a thousand fold who help the poor wanderer.¹

THE FINNS.—Finland is a land of pine forest, of rock, of river, and lake. It is the playground of Petrograd; for its frontier is but a couple of hours' distance by rail. The capital, Helsingfors, is surpassed by no other city in cleanliness, order, and all the externals of modern civilization. The Finns are a very interesting people.

The real ancestor of the Finn is his climate. He is hardy in body and hard in temperament; given to silence; laborious and conscientious; with many virtues and few graces. The fact that he makes a splendid sailor, tells much of his character, as it causes him to be found before the mast the world over—there is a special mission to Finnish sailors in San Francisco. He steers the tar-boats down his own perilous rapids, with the daring and coolness of the Indian in his canoe; he lives as frugally—and for the same reason—as the Highlander of Scotland; you cannot help but trust him, but it is often more than you can do to get him to talk. His agriculture is yet of the most primitive character; his favourite method of cultivation is to cut down the trees in winter, leave them to dry for a season, and then burn them, with the underwoods, to clear the land, and fertilize it at the same time.

Within his hard shell, however, there is a tender kernel of romance and playfulness and song. His immortal epic of the past, the Kalevala, still echoes in his heart, and his old men clasp hands and sing its runes, or others which come unbidden to their lips, in thrilling strophe and antistrophe. On Whitsun-eve, his young men light bonfires and make merry round them, and Christmas brings out his candles and fir-trees and fat fare. But he comes out of his shell most of all in midsummer for a *Streitgesand*, or Eisteddfod, when from far and near come singing-clubs and choirs, to be judged by a jury of their elders, in the court of a green glade, before an audience of the whole countryside.²

THE DEAD LAND OF POLAND.—Poland has been called the "Niobe of nations." Like Bohemia, it is one of the dead lands of Europe, a country with a great past, but which for three generations has been at the mercy of the three empires that rent it asunder. In 1815, 1830, 1848, and again in 1863 the Polish question brought Europe to the verge of war, and since 1863 it was one on which the rulers of the world have deliberately and perhaps wisely been silent.

When we speak of Poland we think of the Poland and the Poles whom we know ourselves—weak, helpless, divided. But let us remember that there was an older Poland, one which occupied in Europe a position among the greatest monarchies. Five hundred years ago the Kings of Poland held a great place among the rulers of Europe. Two hundred and fifty years ago a Turkish army stood before the gates of Vienna. The great imperial city, the guardian of Christendom and civilization, was beleaguered by the hosts of the infidel and the barbarian. If it fell, a flood of desolation would sweep over Central Europe. Whence could help come? It came, and the saviour was John Sobieski, King of

Poland. And the next Sunday, in the Cathedral of Vienna, the preacher took as his text, "There was a man sent from God, and his name was John."

But now there is no King of Poland; there is no Poland. Fifty years ago Metternich said he had no knowledge of Italy—Italy was merely a geographical expression. Poland is not even a geographical expression. There are the Polish provinces of Prussia, there is Galicia, there is the district of the Vistula. Poland is dead, the monarchy is gone; you can see the jewels of the Polish crown preserved in a museum in a German city; you can see the tombs of the kings and recall the past greatness of the kingdom in the churches at Cracow, the ancient capital. But Poland is rent asunder. It has been divided between three great monarchies, by which its territory was surrounded; but the memory of the crime has not been effaced in the history of Europe, and Europe will never be at peace or at rest until there has been reparation and restoration. The final judgment on it has been given by one of the participants. Maria Theresa of Austria wrote: "When all my lands were invaded, and I knew not where in the world I should find a place to be brought to bed in, I relied on my good right and the help of God. But in this thing, where not only public law cries to Heaven against us, but also all natural justice and sound reason, I must confess never in my life to have been in such trouble and am ashamed to show my face."

The hour for which the world has waited so long has now come, and at last the diplomacy of Europe has mentioned the word Poland. The first word was spoken by the ruler of that country which has enjoyed for a hundred years the larger share of the booty. The Czar proclaimed that Poland should be restored, and his Allies have taken note of the words and embodied this in their proposals for terms of peace. It is a word which has not been lightly spoken and cannot be recalled. The President of the United States has also taken note of it and has specifically stated that an autonomous and independent Poland must be a part of any new system to which he and the American nation are to give their guarantee.¹

SYNOPSIS OF RUSSIA IN EUROPE AND CAUCASIA

(See Map, p. 42)

BOUNDARIES.—Russia is bounded on the north by the Arctic Ocean; on the east by Siberia; on the south by Roumania, Black Sea, Caucasus Mountains,² and the Caspian; and on the west by the Baltic, Prussia, and Austria.

CLIMATE.—Four climatic zones are recognized: the polar zone, on the Arctic Ocean, where polar bears and walrus are found; a frigid zone between 67° and 57° N. lat.; a temperate zone between 57° and 44° N. lat.; and the warm districts in the south of the Crimea, where lemons ripen.

The winters are everywhere, except in the Crimea, very long and cold (mercury freezes in the north), while the summers are brief and sultry, as is shown by the following annual mean temperatures. The mean temperature in January at Archangel is 9.6°F., at Petrograd 17.6°, Moscow 15.8°, Warsaw 24.8°, Odessa 28.4°, Astrakhan 23°, and Orenburg 9°. The mean temperatures in July at the same places are 58°F., 60.8°, 66.2°, 62.6°, 70.7°, 75.2°, and 68°.

The rainfall of Russia is less than that of western Europe. At Petrograd 18 inches fall per annum; at Kasan 14, at Astrakhan 4.8 inches. For months in winter the whole of Russia is covered with a thick mantle of snow, which contributes greatly to the fertility of the soil when the spring thaw sets in. The north wind and the dry east wind are very cold. See *Climate Map of Europe*, pp. 24, 25.

NATURAL PRODUCTIONS.—(1) *Agriculture and forestry.* The frozen plains or tundras of northern Russia are succeeded by a wide belt of pine forests, and farther south by forests of oak and beech. These forests are under government control. In the clearings, rye, oats, flax, and hemp are grown. South of the forest-land is the most fertile region of Russia, a treeless plain extending from the Carpathians to the Urals south of 55°, and called the Land of the Black Earth, producing wheat, rye, and in the southwest maize. Potatoes are extensively grown, especially in the regions extending eastward from Germany. The steppes in south Russia are clothed with grass in spring and autumn, and great quantities of cattle, sheep, and horses are reared. See *Vegetation Map of Europe*, p. 26.

The bulk of the population is supported by agriculture. In the supply of rye, barley, flax, and hemp Russia holds first place, and in the supply of wheat and oats the second place.

(2) *Mining.*—Iron, gold, zinc, silver, and platinum are found in great abundance. The chief coal-fields are (1) around Tula to the south of Moscow, (2) on the west in Poland, (3) in the south between the rivers Donetz and Don near the Sea of Azof, where the best coal is obtained. The petro-

¹J. W. Headlam, "The Dead Lands of Europe" (1917).

²The southeastern boundary has never been agreed upon by geographers. The Russians themselves take the crests of the Caucasus range as the dividing line.

¹A. S. Rappoport, "Home Life in Russia" (1913).

²Henry Norman, "All the Russias" (1902).

leum wells on the western shore of the Caspian are very productive; and in the production of petroleum Russia ranks next to the United States. Mines of rock salt are found in several places, and salt is also produced from the salt swamps of the steppes. See *Economic Map of Europe*, p. 27.

MANUFACTURES.—Distilling and brewing are the most extensive industries of European Russia. On the whole the industries are more or less undeveloped, and are largely carried on in the homes of the people. But with its vast natural and human resources there is every indication that the new democratic Russia will extend its manufacturing industries to enormous dimensions.

CHIEF CITIES AND INDUSTRIES OF RUSSIA IN EUROPE AND CAUCASIA

CITY	POP. IN THOUSANDS	PROVINCE OR "GOVERNMENT"	PRINCIPAL INDUSTRIES
ASTRAKHAN*	150	Astrakhan	Fisheries.
BAKU	237	Transcaucasia	Petroleum, flour, sulphuric acid, tobacco, rock-salt.
BERDICHEV	77	Kief	Tobacco, soap, candles.
BIALYSTOK	86	Grodno	Woollens, silks, felt hats.
BREST-LITOVSK	57	Grodno	(Railway centre.)
CHERSON*orKHERSON	92	Cherson	Rope making, woollens.
CRONSTADT	60	Petrograd	(Naval arsenal.) Cannon foundry, shipbuilding.
CZENSTOCHOWA	56	Piotrkow	Cottons, paper.
EVANSK	111	Vitebsk	Tanneries, breweries.
EKATERINODAR	107	Caucasus	Cereals.
HELINGSFORS	154	N.-land	Coal, sugar, clothing, machinery.
IVANOVG	168	Vladimir	Cotton manufacture.
KASAN*	188	Kasan	Leather goods, soap, cotton goods.
KHARKOF*	248	Kharkof	Cattle, grain, leather, beet sugar.
KIEF*	506	Kief	Beet sugar.
KISHINEF*	120	Bessarabia	Cattle, corn.
KOVNO*	88	Kovno	Nails, wire-works, timber, metal goods.
KREMENCHUG	99	Poltava	Timber, salt, tallow.
KURSK*	75	Kursk	Agriculture.
LIBAU	67	Courland	Iron works, breweries, tobacco, explosives.
LODZ	416	Piotrkow	Cottons, woollens, silks.
LUBLIN*	66	Lublin	Thread, linens, woollens.
MINSK*	106	Minsk	Agriculture, timber.
MOSCOW*	1,617	Moscow	Cottons, chemicals.
NIKOLAYEVSKAYA	51	Astrakhan	Corn, salt.
NIZHNI NOVGOROD	109	Nizhni Novgorod	Flour-mills, distilleries, machine works.
NOVOCHERKASK*	53	Don Cossacks	Corn, wines, timber.
ODESSA	620	Bessarabia	Sugar refineries, paper.
OREL*	91	Orel	Rope making, flour, spinning.
ORENBURG*	94	Orenburg	Hides, skins, tallow.
PETROGRAD*	2,018	Petrograd	Glass, tanneries, cottons, carpets.
PINK*	98	Pensa	Paper, fishing, agriculture.
POLTAVA*	84	Poltava	Flour, tobacco.
RIGA*	370	Livonia	Timber, flax, hides, leather.
REVAL*	99	Estonia	Grain, timber, flax, hides.
ROSTOF	14	Don Cossacks	Agricultural machinery, flour, timber.
SALYANY	121	Transcaucasia	Fishing.
SAMARA*	146	Samara	Hides, soap, tanneries, breweries.
SARATOF*	217	Saratof	Pottery, woollens, cottons, silks.
SEVASTOPOL	78	Taurida	(Naval station.)
TAGANROG	68	Ekaterinoslaf	Corn, wool, butter.
TIFLIS	328	Transcaucasia	Cotton, silk, soap, leather, silver, iron, manganese, rock-salt, brick.
TSARITSYN	101	Saratof	Fisheries, petroleum.
TULA*	137	Tula	Rifles, samovars.
TVER*	63	Tver	Cottons, glass, tanneries.
VILNA*	193	Vilna	Timber, grain.
VITEBSK*	104	Vitebsk	Flax, corn, hemp.
VLADIKAVKAZ	79	Caucasus	Distilleries.
VORONEZH*	79	Voronezh	Linens, woollens, tallow, corn, flax.
WARSAW*	872	Poland	Iron, steel, plated silver, sugar.
YAROSLAF*	112	Yaroslaf	Cottons, flour, linens.
ZHITOMIR*	93	Volhynia	Timber, wooden wares, agricultural produce.

*Capital of province.

CAPITAL.—Petrograd, on the Neva. Population 2,018,596. The name *St. Petersburg* was changed by Imperial Order, Sept. 1, 1914.

CHIEF PORTS.—Petrograd, the naval depot and fortress Cronstadt, Narva, Riga, Libau, Pernau and Windau (Baltic); Reval, Helsingfors, and Viborg (Gulf of Finland); Archangel, and the new ice-free port of Alexandrovsk on Catherine Harbour (Arctic and White Seas); Odessa, Nikolaief, Sevastopol, Novorossisk, Berdiansk, and Batum, Taganrog, Mariupol, Rostof, and Kertch (Black Sea and Sea of Azof); Astrakhan, Derbent, and Baku (Caspian Sea).

The greatest amount of trade is done by *Odessa*, the great grain port. *Petrograd* ranks next, judged by the volume of trade; but the Neva is blocked with ice for about five months in the year. *Riga* ranks third. *Archangel* is closed for more than half the year.

COMMERCE.—The sea-borne commerce suffers to some extent from the

fact that the coasts are open to the Arctic waters and to inland seas, while even the ports on these inland seas are more or less blocked by ice during a severe winter. Commerce is mainly carried on with Germany, the United Kingdom, and the United States. Taking into account the size of the population and of the country, the amount of foreign trade is relatively small, and is far less per head than in any other European country.

With the United States.—Russia sends to the United States hides and skins, manufactured wool, chemicals, dyes, etc., and receives in return agricultural implements, iron and steel and manufactures, leather and manufactures, fibres, cotton and manufactures, copper and manufactures, cars, carriages, etc.

CHIEF IMPORTS.—Cotton, tea, and other colonial produce, iron and machinery, wool, wine, fruits, and vegetables.

CHIEF EXPORTS.—Wheat and other cereals, raw and dressed flax, linseed, timber, hides and skins, hemp, tallow, wool, spirits, tow, and bristles.

COMMUNICATIONS.—There are about 28,000 miles of railways in European Russia and 47,000 miles in the whole of Russia, of which about 40,000 miles belong to the State. These figures do not include Finland (2,263 miles) or the Eastern China Railway (1,078 miles). In European Russia, exclusive of Finland, there are 77,721 miles of navigable rivers, canals, and lakes. In winter the inland waterways become highways for sledges.

GOVERNMENT.—March 15, 1917, ranks with the great dates of history; for on that day autocracy was overthrown in Russia and democracy came into its own. Up to that time the Czar was the supreme ruler and legislator, and the only source of power in the body politic. The Republic of Russia was formally recognized by Great Britain, France, Italy, and the United States on March 22, 1917.

THE CAUCASUS.—The Caucasus, or Caucasia, is bounded by the Black Sea, Russia in Europe, the Caspian Sea, Persia, and Turkey. Its area is 95,406 square miles; population 6,818,000.

The climate is varied. The mean annual temperature at Baku is 59°F.; at Tiflis 55.4°F. The rainfall at Tiflis is 17.5 inches, and on the Black Sea shores even 58 inches. The country is thus very fertile, and agriculture is most prosperous. All kinds of grain, fruit, vines, cotton, saffron, and madder are produced.

Cattle and sheep farming, horse-breeding, besides bees and silk-worms, form important industries.

The minerals are considerable. Silver, iron, coal, copper, salt, sulphur, quicksilver, manganese, etc., abound. More important still is the production of petroleum, especially around Baku. The oil is piped to Batum on the Black Sea (over 500 miles) for export.

Chief exports: Petroleum, silk, flax, madder, wax, cattle, isinglass, caviare, lecches, boxwood. **Chief imports:** Cotton and silk fabrics, carpets, linen, colonial produce, metal goods, tobacco, dyes.

Capital, *Tiflis*, population 327,800.

FINLAND.—The Grand Duchy of Finland on the Gulfs of Finland and Bothnia was conquered by Russia from Sweden, and finally annexed in 1808. The area is 144,254 square miles, with a population of about 3,000,000 of whom about 2,600,000 are Finns, 400,000 Swedes, 19,000 Russians, 3,000 Germans, and 2,000 Lapps leading a nomadic life in the north. Nearly all the inhabitants are Lutherans. There is a university at Helsingfors, with 2,512 students, of whom 518 are women. The leading crops are rye, barley, oats, potatoes. Saw mills and paper manufactures provide the chief industry, and the forests are a great source of wealth, immense quantities of timber being prepared for export; dairy produce is also exported. There are 2,582 miles of railroad and a merchant fleet of 3,120 vessels (mostly small), of which 400 are steamers.

The country was formerly governed by the Imperial Finnish Senate, of 22 members, with a Diet of 4 estates elected by the people. This form of government gave way on Jan. 1, 1907, to a new Constitution involving a single Chamber elected by universal suffrage of both sexes. Women are likewise eligible for election to the Chamber. Finland is thus the first country to concede woman suffrage and representation, and it is noteworthy that it has been gained without agitation. The Finnish troops only exist in name, the Diet having voted \$2,000,000 per annum to the Russian treasury in lieu of furnishing Finnish recruits to the army or navy.

POLAND.—Russian Poland consists of ten provinces, with a total area of 49,159 square miles, and a population of about 13,000,000 of which about 14½ per cent are Jews. The country had a separate constitution from 1815 to 1830, and a separate government from 1830 to 1864; but in the latter year it was deprived of its administrative independence, and in 1868 it was incorporated as an integral part of Russia, trial by jury was abolished, and the official use of the Polish language was prohibited. The majority of the inhabitants are Roman Catholics. About 76 per cent. of the population live in the rural districts, and the peasants own about 49 per cent. of the land; but of the total rural population of 7,000,000 about 3,000,000 own no land, and are dependent on hiring themselves out as labourers. Russian Poland is one of the largest pig-producing countries in Europe.

For *Russia in Asia*, see p. 314.

AUSTRIA-HUNGARY

(See Map, p. 43)

The position of Austria as the leading state of the Holy Roman Empire has been recorded in the introduction to Germany (see p. 267). Hungary was founded in the ninth century by Ural-Altaic invaders, and became a Christian country under St. Stephen (997–1038). Bohemia, a Slav state, was founded about the same time, and like Poland received Christianity from the Roman Church, not like

Russia from the Greek Church. Both these kingdoms entered at first only into a *personal* union with Austria; their historic individuality was recognized in principle till 1804, and has constantly been asserted by the various nationalist parties.

The war with Prussia in 1866 had three effects: (1) Austria ceased to be part of Germany; (2) she had to cede

Venetia to Italy; (3) she was forced to yield to the Hungarian demand for autonomy, and the Hapsburg monarchy became a Dual Monarchy, Francis Joseph being crowned King of Hungary on June 8, 1867.

The growth of the Austrian empire has been largely the result of successful marriages. The consolidation of the Hapsburg monarchy as the chief power in central and south-eastern Europe was checked by two ambitions: (1) The endeavour to maintain its traditional position as the predominant German state; (2) the determination to preserve the share of the Spanish empire received in 1713-1715, as a result of the War of the Spanish Succession. This consisted of the southern Netherlands and territory in Italy. Austria's position in Germany was threatened by the rise of Prussia, and weakened by Frederick the Great's seizure of Silesia (1740). The Netherlands she was never able to administer as an integral part of her dominions.

Austria-Hungary is racially the most diversified of European states. The chief problems of its administration arise from the fact that its boundaries include members of eleven different nations, six of whom have kinsmen outside the monarchy (see *Racial Map of Europe*, p. 22). The following table shows the distribution of the different ethnical elements in the Dual Monarchy:

RACE	AUSTRIA	HUNGARY	BOSNIA
GERMANS	9,950,266	2,037,435	.....
CZECHS	6,435,983	1,967,970	.....
SLOVAKS }	4,967,984	.....	.....
POLES	3,518,854	472,587	.....
RUTHENES . . . . .	.....	10,050,575	.....
MAGYARS (including 900,000 Jews)	783,334	1,833,162	1,875,000
CROATS } . . . . .	.....	1,106,471	.....
SERBS }	1,252,940	.....	.....
SLOVENES	275,422	2,949,032	.....
ROUMANIANS	768,422	27,307	.....
ITALIANS . . . . .	.....	374,105	.....
OTHERS . . . . .	.....	.....	.....

THE PASSING SHOW IN VIENNA.—There is no better place than the Ring [Ring Strasse, a fashionable street in Vienna] in which to study the many and various types of the monarchy. Take your seat at the window of one of the cafés and look.

The spectacle is quite unique. To begin with, the crowd is as variegated as at a fair ground, and nowhere else does one find such handsome samples of the human race; in no other spot do the women impress you as they do here. A party of young girls advances; the purity and grace of their outlines would arouse the envy of a Greek statue; their cheeks have the delicate tints of a tea-rose; in their eyes are the deep shadows of the Orient; the arched feet and light step indicate Hungarian blood. Their dress displays a natural elegance of taste, while in their manner of walking there is something of the feline, swaying grace of the Parisienne. The Slav women of Bohemia and Poland also possess that powerful charm—racial individuality; they are large and strong of limb, with big, soft, black eyes, and skin like marble—a contrast at once poetical and unusual. They make one think of the swans of the North, or the White Nixies of the Netherlandish legends. Their features are finely chiseled and intelligent, and underneath this icy mask there burns a fiery spirit.

In this cosmopolitan assemblage one comes across Italians prattling in their melodious language, like swallows in a northern clime announcing the return of spring; and then there is the pretty Viennese herself, with her taking manners, her little nose tilted into the air, and her arch glances. The Viennese women preserve their brilliant colouring even when they get old, and belong to that type of beauty—a trifle too robust, perhaps—which has been rendered classic by some of the Italian masters.

Those women, decked out like the show windows of a

jeweller's shop, with a slight down on the upper lip, little curls on the temples, earrings, in the form of hoops, or little coiffers or bells, are Jewesses, bankers' wives and millionaires—weather-beaten vessels which have navigated every sea, and long since doubled Cape Tempest. But how handsome their daughters are! and how expressive that Jewish cast of countenance and the great, full eyes can be!

The Viennese men are large and strongly built, though one does not meet on the Ring those giants who are to be seen beneath the lindens of Berlin. The Viennese type of face is intelligent, frank, and full of sprightly good humour. The Austrian race is an exuberant one. There is no country whose people have better blood in their veins. But . . . were it to be analyzed, a very small proportion of it would prove to be German.¹

PRIMITIVE CUSTOMS.—In Prague, the capital of Bohemia, I came in contact for the first time with the advance guard of a new race, the Slavs, writes Booker T. Washington, I say a new race, because although the Slavic peoples claim an antiquity as great as that of any other race in Europe, the masses of the race seem just now emerging from a condition of life more primitive than that of almost any other people in Europe.

Many little things, not only what I saw with my own eyes, but what I heard from others, gave me the impression as I travelled southward, that I was entering into a country where the masses of the people lived a simpler and more primitive existence than any I had seen elsewhere in Europe. I remember, for one thing, that I was one day startled to see, in the neighbourhood of the mining regions of Bohemia, a half-dozen women engaged in loading a coal barge—shovelling the coal into wheelbarrows and wheeling them along a narrow plank from the coal wharf to the ship alongside.

I was impressed, again, by the fact that several of the peoples of the Austrian Empire—the Moravians and Ruthenians are an illustration—still preserve their old tribal names. Certain other of these peoples still keep not only the tribal names, but many of the old tribal customs. Among most of the Slavic peoples, for example, custom still gives to the marriage ceremony the character of barter and sale. In fact, I found that in one of the large provincial towns in eastern Hungary the old "matrimonial fairs" are still kept up. On a certain day in each year hundreds of marriageable young women are brought down to this fair by their parents, where they may be seen seated on their trunks and surrounded by the cattle they expect to have for a dowry. Naturally young men come from all the surrounding country to attend this fair, and usually a lawyer sits out under a tree nearby prepared to draw up the marriage contract. In some cases as many as forty marriages are arranged in this way in a single day.²

AGRICULTURE IN HUNGARY.—The staple industry of Hungary is agriculture. The ambition of the people is commercial, but the strength and wealth of the country lie in the land.

Hungary is handicapped, however, by one grave defect, or perhaps it is better to say one urgent need—business capacity. The handling of things earthly, the participating in such mundane affairs as sale and barter, was, and is even to-day, alas! too far from the mind of the Hungarian youth when he is determining upon a vocation. Hungary is consequently full of men with a doctor's degree, who seek the more gilded avenues provided by the *ministeriums*, with its less lucrative livelihood. Therefore, where the need is less the market is glutted with labour, whilst in the larger fields of enterprise men of education and position are really needed. This habit of mind gave the Jews their great opportunity, and what of trade or commerce exists to-day in Hungary is practically a result of their patience and perseverance.³

¹Maria H. Lansdale, "Vienna and the Viennese" (1902).

²Booker T. Washington, "The Man Farthest Down" (1913).

³W. B. F. Bovill, "Hungary and the Hungarians" (1908).

A SLOVAK VILLAGE.—Let me give you just a glimpse of a Slovak village.

One of its distinguishing features is a brook, which invariably runs as a dividing line through its irregular and uneven street. At first sight it would seem that the population was composed of geese and women, for I scarcely remember ever passing through a village where I did not find a group of women knee-deep in the brook, pounding clothes out of shape, but into some degree of cleanliness. If you need a more complete picture, bring in some willows, and a wagoner contentedly watching his horse drink from the brook prior to driving through the shallow stream, with a horde of children, none too clean, gazing at all from a rickety foot-bridge. Such is a Slovak village.¹

SYNOPSIS OF AUSTRIA-HUNGARY

(See Map. p. 43)

BOUNDARIES.—Austria-Hungary is bounded on the north by Saxony, Prussia, and Russia; on the east by Russia and Roumania; on the south by Roumania, Serbia, Turkey, Montenegro, the Adriatic Sea, and Italy; and on the west by Switzerland and Bavaria.

CLIMATE.—Austria-Hungary lies exactly midway between the equator and the North Pole, but as its situation is "continental" and its surface very mountainous, it has very hot summers, followed by severe winters. An oceanic climate is enjoyed only by the Adriatic coast and the islands, where olive trees and laurels flourish in the open air. Vienna has a temperature of 30.5°F. in Jan. and 68°, in July; Budapest has 31°F. and 69°F.

The rainfall, corresponding to the physical features, varies greatly. The rainfall in Vienna is 22.6; in Ofen 17.8; in Prague 15.7. The Coastlands, South Tyrol, and South Hungary have very dry summers, followed by rainy winters. The climate is everywhere healthy except in the marshy regions. See *Climate Map of Europe*, pp. 24, 25.

NATURAL PRODUCTIONS.—(1) *Agriculture.* About 40 per cent of the Dual Monarchy is under crops, and about 25 per cent is pasture land. In Austria *oats* and *rye* are grown to a greater extent than *barley* and *wheat*; while in Hungary with its richer soil wheat predominates over all other crops. The *maize* crop in Hungary is second only to wheat. *Potatoes*, *sugar beet*, and *tobacco* are extensively grown. Large supplies of timber are yielded by the extensive forests. On the Hungarian *pustas*, which resemble the Russian steppes, horses, cattle, and sheep are raised.

(2) *Minerals.* *Coal* is the most valuable mineral of Austria; but is found to a much less extent in Hungary. The chief coal-field is that of Bohemia, which extends from near Prague westward beyond Pilsen. Another important coal-field is that of Sillesia. *Iron* is found in the coal districts. *Gold* and *silver* are produced in Transylvania and Hungary, *quicksilver* at Idria near the Adriatic. *Lead*, *zinc*, and *copper* also occur. *Petroleum* and *rock salt* abound in Galicia. See *Economic Map of Europe*, p. 27.

(3) *Mineral Springs.* Austria is famous for its medicinal waters, notably the alkaline springs of Carlsbad, Marienbad, Giesshübel, Bilin, Baden, Teplitz-Schönau, and Gastein, where are the most frequented watering-places in the world. Much of the water is exported for sale all over the universe.

(4) *Fisheries.* The sea fisheries of the Adriatic coast (about 1,000 miles) employ a large number of persons. The river and lake fisheries are also important industries, especially in Bohemia.

MANUFACTURES.—The manufactures of Austria are extensive and include ironware, glassware, textiles, chemical preparations, and almost everything suggested by the primary products of the country. In Hungary the manufactures, apart from corn-milling, are of less importance; they include weaving, metal, stone, glass, wood, brewing, sugar, and tobacco industries.

CHIEF CITIES AND INDUSTRIES OF AUSTRIA

CITY	POP. IN THOUSANDS	PROVINCE	PRINCIPAL INDUSTRIES
AUSSIG	39	Bohemia	Woolens, chemicals, glass.
BRUNN*	126	Moravia	Woolens, silks, leather.
BUDWEIS	45	Bohemia	Earthenware, cloth, machinery.
CRACOW	152	West Galicia	Machinery, soap, chemicals, tobacco.
CZERNOWITZ*	87	Bukowina	Corn-milling, brewing.
GRAZ*	152	Styria	Paper, vinegar, optical instruments.
KOLOMER	43	Galicia	Petroleum, pottery.
LAIACH*	42	Carniola	Paper, woolens, cotton goods.
LEMBERG*	206	Galicia	Matches, leather, machinery, chocolate.
LINZ*	68	Upper Austria	Woolens, silks, cotton goods.
PILSEN	80	Bohemia	Beer, paper, machinery.
POLA	58	Istria	Fish, timber.
PRAGUE	224	Bohemia	Woolens, silks, porcelain.
PRZEMYSL	54	Galicia	Machinery, timber, liquors.
REICHENBERG	36	Bohemia	Woolens, linens, dyeing.
SALZBURG*	36	Salzburg	Brewing, book-binding.
TARNOPOL	34	Galicia	Agriculture, corn, horses.
TRIESTE*	152	Küstenland	Petroleum, iron foundries, chemicals.
VIENNA*	2,031	Lower Austria	Machinery; pottery, steel, tin, and bronze ware; furniture, silks, leather, railway engines.

*Capital of province.

CAPITAL.—*Vienna*, on the Danube. Population 2,031,498.

¹W. B. F. Bovill, "Hungary and the Hungarians" (1908).

CHIEF CITIES AND INDUSTRIES OF HUNGARY

CITY	POP. IN THOUSANDS	COUNTY	PRINCIPAL INDUSTRIES
ARAD*	63	Arad	Grain, alcohol, cattle, machinery.
BUDAPEST*	880	Pest-Pilis-Solt-Kiskun	Machinery, chemicals, bricks, cutlery, gold and silver ware, corn, cattle, wines.
DEBRECZEN*	93	Hajdu	Tobacco, cattle, horses.
FUME	50	Croatia	Paper, chemicals, flour, tanneries.
HÓMEZŐ-VÁSÁRHELY	62	Csongrád	Wine, agriculture.
KECSKEMET	67	Pest-Pilis-Solt-Kiskun	Soap, leather, fruits.
MISKOLCZ*	51	Borsod	Porcelain, boots and shoes, grain, cattle.
SZEGEDIN*	118	Csongrád	Soap, leather, saw-mills, distilleries.
TEMESVAR*	73	Temes	Tobacco, leather, grain, flour, spirits.

*Capital of county.

CAPITAL.—*Budapest*, on the Danube. Population 880,371.

CHIEF PORTS.—*Trieste*, at the head of the Adriatic, is the principal harbor; it is the headquarters of the Austrian Lloyd Steamship Company. *Fiume*, the harbour of Hungary, does a large export trade, but imports very little. The chief river-ports are Vienna, Budapest, and Linz, on the Danube; Prague, on the Elbe; Lemberg, on the Bug; and Cracow, on the Vistula. *Pola* is the naval station.

COMMERCE.—Commerce is carried on principally with Germany, Italy, Russia, France, and Switzerland, and through the ports of Trieste and Fiume, also direct with the United States, Great Britain, and other transmarine countries.

AUSGLEICH.—This term, meaning "agreement, compromise," is the name given to various treaties between Austria and Hungary, especially to that of 1867 on the establishment of the dual government. Part of this Ausgleich created a commercial and customs union by which the two states form one commercial and customs territory, and possess the same system of coinage, weights and measures, and a joint bank of issue. This union is renewable every ten years, and failing a renewal each state provides separately for these matters. In 1897, no agreement was attained and the union was provisionally maintained.

CHIEF IMPORTS.—Raw cotton, textiles, iron and metals, coal and fuel, raw wool, machinery, hides and skins, cereals, coffee, raw silk, leather, tobacco, and books.

CHIEF EXPORTS.—Sugar and confectionery, timber, woodwork, eggs, coal and fuel, animals, hides, glass, woollens, paper and stationery, cottons, leather goods, malt, iron and manufactures, horses, and cereals.

COMMUNICATIONS.—There are about 15,000 miles of railroad in Austria, of which 11,000 are owned by the state, and about the same mileage in Hungary, of which 11,300 are worked by the state.

In Austria, the length of navigable rivers and canals exceeds 4,000 miles, of which 900 miles are navigable for steamers. In Hungary, more than 3,000 miles of rivers and canals are available for transport, and 2,000 miles are navigable for steamers.

There are 30,000 miles of telegraph lines and 150,000 miles of wire in Austria; while in Hungary there are 16,500 miles of telegraph lines and 96,000 miles of wire.

GOVERNMENT.—Austria and Hungary have each its own constitution under a limited monarchy, and each possesses a separate parliament; but they have united in the establishment of a common army and navy, and in the conduct of foreign affairs. The requirements of the common services and the voting of the common budget are controlled by the *Delegations*. Of these there are two, each composed of 60 members, representing the legislative bodies of Austria and Hungary, the Upper Houses returning 20 and the Lower Houses 40 delegates. The members of the Delegations are appointed for one year, and are summoned annually by the Sovereign alternately at Vienna and at Budapest. They are, in effect, select committees of the legislative bodies.

AUSTRIAN GOVERNMENT.—Austria, as distinct from Hungary, is governed by an Emperor and by the *Reichsrath*, or Council of the Empire, consisting of an Upper House (*Herrenhaus*) and a Lower House (*Abgeordnetenhaus*). The *Upper House* is composed of princes, nobles, prelates, and life members nominated by the Emperor (minimum 150). The *Lower House* is elected for six years. The number of deputies is 516. They receive \$4.05 per day while in attendance, with travelling expenses. All the countries represented in the Austrian Reichsrath possess self-government for matters not expressly reserved by the central government of the Empire.

HUNGARIAN GOVERNMENT.—The kingdom includes Hungary, Croatia-Slavonia, and Transylvania, and is governed by a King (the Emperor of Austria), and the *Reichstag* consisting of a House of Magnates and a House of Representatives. The former comprises 239 hereditary peers, some fifty-five ecclesiastical dignitaries, 69 life peers, archdukes, and certain officials. The House of Representatives contains 453 members elected for five years. Members of this house receive \$1,000 a year, with \$333 for house rent. The counties and communes of Hungary possess Councils, composed of elected representatives and largest taxpayers in equal strength.

TRANSYLVANIA.—Transylvania is in full legislative and administrative union with Hungary. Its population is largely Roumanian, and much discontent exists amongst them on account of the persecution and injustice which they allege they suffer at the hands of the Magyar rulers of Hungary.

CROATIA-SLAVONIA.—Croatia-Slavonia has its own Ban, or governor, and its own provincial Diet, consisting of 90 members, for the transaction of provincial matters. *Agram (Zágráb)* is the capital.

BOSNIA-HERZEGOVINA.—Bosnia-Herzegovina, which had since the treaty of Berlin in 1878 been occupied and administered by Austria-Hungary, was in October 1908 formally annexed to the Empire. Under the constitution of 1910 it has a Diet of 92 members, of whom 72 are elected. No bill can be introduced into the Diet without the sanction of the Imperial Government. *Sarajevo* (population 52,000) is the capital of the territory.

SWITZERLAND

(See Map, p. 44)

Perhaps no European country is so well-known the world over as Switzerland, which has an area of barely 16,000 square miles; yet, as the Scot boasted of his own mountainous home, if this were flattened out it would bulk much more largely. It is a veritable "meeting-place of the nations," especially English and Americans.

In the north German is principally spoken, a reminder of the overrunning of the country by a Teutonic tribe after the fall of the Roman dominion. Two thirds of the total population speak German; French is spoken in the southwest; and Italian by a small proportion in the southeast.

The Swiss Confederation dates back to the union of three Cantons or small states in 1291. Since then the number of Cantons has increased till it now reaches twenty-two. That the Swiss have been able to preserve their independence is largely owing to mountain barriers.

The grandeur of the Alpine scenery attracts many visitors, especially in the summer, and a considerable tourist industry has sprung up, which is of great value to Switzerland as a whole and in particular to such tourist centres as Lucerne.

CLIMBING THE ALPS.—The Alps are most accessible to the mountaineer. Railways, villages, and huts make approach to their bases easy. No elaborate outfit is required. Food and clothing do not have to be carried great distances by porters or mules, and shelter from cold at night or from sudden storm may be found in huts at the base of all the principal peaks.

The ascent of Mt. Blanc from Chamonix is not difficult. There are no rocks. Because of the cold and stormy weather the Glacier des Bossons, in the middle of which is the half-way cabin, was in such good condition that the crevasses had hardly had a chance to open and were still filled with snow. The only very steep parts of the ascent are near the top, on the second day. The first day's ascent lasted only seven hours. When we rose again at midnight, wind, clouds, and the promise of snow made it improbable that we would be able to reach the top, so we stayed comfortably at the Grand Mulets cabin until the next day.

The only real danger on Mt. Blanc is from sudden storms, for the whole of the second day's route, up to the top and down again to Chamonix, is on snow, and the beaten tracks quickly become obliterated. If one strays far in the wrong direction, he will get among impassable crevasses, or will come too near to the slopes at the side and may be overwhelmed by avalanches of snow and ice from them; or he may perish from cold.

The ascent from the Grand Mulets to the Refuge Vallot above takes four or five hours, in good weather, and to the tiny summit observatory is another two hours. The Refuge Vallot has mattresses and blankets, but no wood and no food, and its altitude is 14,312 feet. With the best of conditions, the ascent is, therefore, a long pull, and for the last few hours very cold, because all snow and so high.

Hence it is never safe to start for the top without extra warm wraps, special protection for the feet, and a two days' supply of food. Because of the number of people that have been lost, one short section of the route has now been staked, yet shortly after my ascent two *caravanes* nearly perished far above this point, both from bad judgment. Many people go as far as the Grand Mulets, but one-third of those that start thence for the top turn back at the Grand Plateau, 12,900 feet, when two-thirds of the way up, for there it is that the freezing, the mountain sickness, heart failure, violent headache, or difficult breathing begins.

Starting from the Grand Mulets at 2.45 A. M., we went as fast as was possible over the fresh snow, up and up amid

fairly-like scenes, first of full moonlight, then of dawn, and finally of sunrise on the massive stretches and slopes and summits of snow on every side. In seven hours we had reached the top, inclusive of about an hour and a half of stops, to eat, to make adjustments, and to photograph. From the Grand Plateau on, it had been intensely cold. I had a violent headache, and the wind was piercing.

Above 15,000 feet I began to breathe less easily and could not continue to go quite so fast. The day was superb, and we were the only *caravane*. But we could linger only a half hour at the top, for we were to make the long and for a time difficult descent by the Italian side. A snow-covered ice cornice of great steepness took what seemed an interminable half hour to descend. Even step-cutting and crampons did not seem to make it safe from slipping. From it we had to descend the very steep Glacier du Dôme, which was a mass of crevasses at every turn. To descend it thus in the afternoon of a hot day meant plunging to the knees for two hours in soft snow and going in to the hips below every crevasse over which I jumped.

The tiny hut at the foot was already filled by an ascending *caravane*, so five hours of interminable walking down the Glacier de Miage and over rough ground on a valley path must be added to our day's work. At 10 P. M., 19½ hours after our start, we came into Courmayeur, Italy, 11,800 feet below the summit but not especially tired and with no worse complaint than toes a little sore from the long descent with wet feet. I was the first woman who had reached the top that season, and ours the first *caravane* that had "traversed" Mt. Blanc that year.¹

SYNOPSIS OF SWITZERLAND

(See Map, p. 44)

BOUNDARIES.—Switzerland is bounded on the north by Germany, on the east by Austria, on the south by Italy, and on the west by France.

CLIMATE.—The great irregularities of the surface are naturally accompanied by a corresponding variety of climate. Ticino, Vaud, and Geneva enjoy an almost Italian climate, with a mean temperature of 51° to 53.5°F., in which southern fruits ripen. On the Swiss plateaus and the lower mountain valleys a temperate climate prevails (mean temp., 50°F.), while in the higher valleys the climate is subject to great extremes. The rainfall, as is usual among lofty mountains, is very great.

The *foehn*, a warm south wind, works great havoc by melting the snow, and so producing avalanches and inundations. See *Climate Map of Europe*, pp. 24, 25.

NATURAL PRODUCTIONS.—(1) *Agriculture.* Agriculture is followed chiefly in the valleys, where *wheat, oats, maize, barley, flax, hemp, and tobacco* are produced. Vine culture is carried on in all the cantons, though sufficient is not raised for the domestic demand. In the warmer southern valleys such *fruits* as almonds, chestnuts, walnuts, olives, and lemons are produced. About one sixth of the total area is covered by forests. *Cattle and goats* are numerous, and great quantities of cheese are exported.

(2) *Minerals.* The mineral resources of Switzerland are poor. There is no coal and only a small quantity of iron.

MANUFACTURES.—The manufactures consist chiefly of silks, cottons, linen, lace, thread, woollens, etc. Clocks and watches have long been the staple products of Geneva and Neuchâtel; while leather, gloves, pottery, cheese, tobacco, and snuff are made.

CHIEF CITIES AND INDUSTRIES OF SWITZERLAND

CITY	POP. IN THOUSANDS	CANTON	PRINCIPAL INDUSTRIES
BASEL*	133	Basel	Silks, paper, breweries.
BERN*	86	Bern	Woollens, linens, silks, watches.
CHAUX-DE-FONDS, LA*	38	Neuchâtel	Watches
FRIBOURG*	20	Fribourg	Agriculture.
GENEVA*	155	Geneva	Watches, jewellery.
LAUSANNE*	64	Vaud	(Tourist centre.)
LUCERNE*	39	Lucerne	Grains, carriages, silks, cottons.
NEUCHÂTEL*	24	Neuchâtel	Wines, chocolate.
SAINT GAILLEN*	38	Saint Gallen	Lace, cottons, embroideries.
WINTERTHUR	25	Zurich	Cottons, wines, machinery.
ZURICH*	191	Zurich	Cottons, silks.

*Capital of canton.

CAPITAL.—Bern, on the Aar. Population 85,651.

COMMERCE.—The foreign trade is that of a typical manufacturing country, food and raw materials being imported and manufactured goods exported. Germany and France are the two largest customers.

¹Dora Keen, in the *National Geographic Magazine* (1911).

CHIEF IMPORTS.—Silk, cereals, flour, animals, coal, cottons, woollens, cotton, chemicals, iron, wine, ironware, machinery, sugar.

CHIEF EXPORTS.—Silks, clocks and watches, cottons, machinery, silk yarn, cheese, silk, chemicals, milk, chocolate, cotton yarn, skins.

COMMUNICATIONS.—There are more than 3,500 miles of state railways; 2,000 miles of telegraph line (with 17,000 miles of wire); and 12,000 miles of telephone line (with over 27,200 miles of wire).

GOVERNMENT.—Switzerland is a Federal Republic. The legislature con-

sists of two Chambers, a State Council (*Ständerath*) of 44 members and a National Council (*Nationalrath*) of 189 members elected for three years. Both Chambers united are called the Federal Assembly (*Bundes-Versammlung*). The executive power is deputed to a Federal Council of seven members, elected for three years by the Assembly, the president and vice-president of which are elected annually, and are the first magistrates of the republic. The President of the Confederation receives a salary of 20,000 francs (\$4,000) a year.

ITALY

(See Map, p. 45)

Italy, the land of classic fame, inspirer of arts and letters, guardian of religion, and home of romance, has become in these days of rapid transportation the show-place of Europe.

The history of Italy has run parallel with that of Germany, with which country a large part of Italy was nominally united under the Holy Roman Empire. The formation of a great and united nation out of a disrupted country is one of the greatest events of our times. Its history, as Freeman points out, consists of four stages: "In the first the kingdom fell asunder into principalities. In the second the principalities vanished before the growth of the free cities. In the third the cities were again massed into principalities, till in the fourth the principalities were at last merged in a kingdom of united Italy." In Italy, as in Germany, Napoleon prepared the way for national unity. But the territorial dominion of the Pope was a greater obstacle to unity than the shadowy dominion of the Holy Roman Emperor in Germany.

The union of Italy, when it came, was effected rapidly. In 1859, King Victor Emmanuel of Sardinia with the aid of France wrested Piedmont from Austria, and in the following year Modena, Parma, and Tuscany voluntarily joined themselves to Victor Emmanuel's kingdom. Now it was that Garibaldi emancipated southern Italy and added the kingdom of Naples to the growing dominion of Victor Emmanuel. The Papal States, with the exception of the Patrimony of Peter (Rome and the vicinity), were also annexed with the approval of the populations; and in 1861 the kingdom of Italy was proclaimed with Victor Emmanuel as king. Five years later, in alliance with Prussia, Venetia was won from Austria; and in 1870 Italian troops occupied Rome and ended the temporal power of the Pope.

ITALIA IRRIDENTA.—But the dream of Italian patriots is not quite realized; for the unification of Italy will not be complete so long as any part of "Unredeemed Italy" (*Italia irredenta*) remains under Austrian rule.

Italia Irredenta—Italy Unredeemed—is a picturesque phrase, and picturesque phrases are apt to be suspected, often with justice. This one, however, happens to express a simple truth. There still exist, beyond the present political frontiers of Italy but contiguous with them, considerable territories inhabited by people Italian by nationality, language, history, and culture, even as the territories themselves are Italian by every canon of political geography. For centuries they were Italian; it is hardly more than a century ago that they were forcibly torn from Italy. . . . Not only are these territories essential to the unity and completeness of Italy, they are no less indispensable to her security and to her freedom. Through the possession of these territories Austria holds the keys to Italy—the mountains from which her armies can descend on the Italian plains, the harbours whence her fleet can assail the eastern coast of Italy.¹

A GREAT NATION.—There is one thing always to be remembered when we are considering Italian questions: This Italy, united and thereby free, is a great nation.

There is perhaps no single criterion judging by which we can call a nation great, but what possible criterion does not united and free Italy satisfy? Whether we judge by history and tradition, or by literature and art, or by territory, population, and resources, she is great. Greatness cannot give or increase the right to freedom—that depends upon other considerations—but it does and should extend the use to be made of freedom. Greatness brings responsibility. Italy is not only able, she is also bound, to make her voice heard in the world, to take her share in the government of it, to do her part in securing that right and not wrong ideals shall prevail, that a right and not a wrong conception of civilization shall triumph.

THE "WOMAN COUNTRY."—Italy is so beautiful, it is so rich in the treasures of art and the glories of nature, it is so gemmed and jewelled by the hand of man and the hand of God, it is altogether so exquisite and delectable that it is not easy to treat it quite like the rest of this hard, prosaic, practical, materialistic, latter-day Europe.

For generations Italy has been the chosen haunt of the sentimental traveller, the paradise of the literary and artistic holiday-maker. It is the Italy of Byron and Shelley, of Goethe and Heine, of Stendhal and George Sand, of Landor and Browning—that we know best, the Italy of the pictures and the palaces and the Vatican galleries, the Italy of the purple hills and sapphire seas; the land of song and music and verse, the "woman country" that inspires her alien lovers with an undying passion.

"Open my heart and you shall see
'Graved upon it, Italy."

Yes; but the Italy of the past, the Italy of a dream, of many dreams.

For there is another, a living, Italy, an Italy *de nos jours*, which resents this patronizing homage. If Italy is the woman nation she is feminist in the modern way, the way that leads to experience, activity, adventure. To lie passive and lovely, while wealthy people (who have made their money in trade) rhapsodize and domineer over her, is not to her mind: she will be up and doing herself. Young Italy, braced by the invigorating waters of the *risorgimento*,¹ still stirring with the flush of adolescent nationhood, rebels under this worship of her ornaments and her charms.²

A DAY IN ROME.—In Rome the past and the present appear to meet, and every phase of life has its representatives. The sculptor, the painter, the antiquary, and the philosopher who delight in palaces, marble halls, pillared terraces, and orange groves; the pilgrim journeying from distant lands to fall before Christ's vicegerent upon earth; the lawyer who buries himself in musty libraries; the architect come from the far north to study colonnades and piazzas built for the bright summer, glorious as its sun; the lover of music who finds here the best opera in harmonious Italy; last of all, the idle rich wanderer, simply seeking amusement without true end or aim in life—Rome, in her boundless resources, will satisfy and fascinate.

¹Literally, "revival, resurrection." The term is commonly applied to the revival in art and letters in the 14th and 15th centuries in Italy.

²Sidney Low, "Italy in the War" (1916).

¹Anthony Hope, "Why Italy Is With the Allies" (1917).

In the morning I strolled into the Borghese Gallery, a superb palace. The apartments devoted to the picture-gallery are of great extent. Close under the windows rolls the turbid Tiber, widened here into the Porta di Ripetta, with divers small squat steamers riding on its muddy current, which take passengers and cattle up the river as far as possible into the Campagna.

Having admired the wonderful paintings of Titian, Raphael, and other great Italian masters, I ordered our carriage to drive by the Corso to the Aventine.

Near at hand a whole faubourg of palaces raise their proud heads in mutual rivalry. Presiding over the district appears the sumptuous church of the Gesù, dark and sombre in its magnificence. Here, in a gorgeous chapel . . . lies Ignatius Loyola, the founder of the order of Jesuits—his tomb as resplendent as his life was poor.

Let us on to the Aventine. We pass the temple of Vesta, the prettiest ruin perhaps in the world, and the church known as the Bocca della Verità, once a temple dedicated to Ceres. The sacred grove and the stately edifices, shrines, and temples which crowned the hill in ancient times have disappeared; the summit is now belted by a noble zone of churches.

Wandering over the hill to a terrace, I saw the city lying at my feet, divided by the river into two unequal portions. The sun shone hotly though in January, and all around prevailed that deathlike repose peculiar to mid-day in Italy. In the centre of the current, beyond the suspension bridge, lay the island of the Tiber. On the opposite side, gardens filled with richly laden orange and lemon trees enlivened the long sombre lines of the houses.

Descending the Aventine I came to the Palatine Hill, which rises abruptly aloft, crowned with the stupendous ruins of the palace of the Cæsars.

Leaving this part of the city, I drove by the grandest of Rome's ruins, the Coliseum, toward the magnificent church of St. John Lateran, the parent church of Rome. A park-like avenue extends from this church to the church of St. Helena, famous for the possession of a fragment of the true cross, brought from Jerusalem by the Empress Helena, and enshrined in a chapel which no woman may enter.

Passing out of the city I drove by villas, gardens, and ruined aqueducts, and then re-entered the grand old walls that yet girdle Rome. We passed through a maze of dirty streets to the Forum of Trajan, where stands the sculptured marble column portraying the victories of that emperor, though his statue has been dethroned from the pillar and St. Peter's erected in its place.

I hastened to the church of San Giuseppe-of-the-Carpenters, close to the Roman Forum, where lie the Mamertine prisons. The *custode* produced a torch, and we descended through an iron wicket to the first dungeon, a rather large room with walls formed of great blocks of solid tufa joined without cement. On one side of the ceiling were the remains of what once was a trap-door, now walled up, through which the bodies of prisoners condemned to the lingering tortures of starvation were drawn up after death.

Down some steep and narrow stairs we descended to the lower prison—small, confined. This is the Tullian dungeon, traced back to the time of the Roman kings. In this suffocating hole, where heavy and unwholesome air only penetrates through a small round hole opening into the upper prison, died by starvation that gallant son of the desert, Jugurtha, who nobly defended his country against the Roman arms.

Tradition names this as the place where St. Peter was imprisoned, and as such it will be venerated by Christians until the day when earth shall exist no more.

Here is the spring, said to have gushed miraculously forth out of the solid stones to enable the apostle Peter and Paul to baptize, during their confinement, the keepers of the prison. The water wells up bright and pure, and is now enclosed in a kind of setting of masonry, and covered with a bronze lid.¹

VENICE, THE CITY OF LAGOONS.—Before the end of the fifteenth century Venice the Magnificent was mistress of the

seas. The maritime supremacy of Pisa and Genoa had been wrested from them by the flourishing city of lagoons. She owned city after city in the west, a vast colonial empire by sea, and was the focus of the whole world's commerce. This is the Venice of the past.

The Venice of modern fiction and drama is a thing of yesterday, a mere efflorescence of decay, a stage dream which the first ray of daylight must dissipate into dust. No prisoner, whose name is worth remembering, or whose sorrow deserved sympathy, ever crossed that "Bridge of Sighs," which is the centre of the Byronic ideal of Venice; no great merchant of Venice ever saw that Rialto under which the traveller now passes with breathless interest: the statue which Byron makes Faliero address as one of his great ancestors was erected to a soldier of fortune a hundred and fifty years after Faliero's death; and the most conspicuous parts of the city have been so entirely altered in the course of the last three centuries, that if Henry Dandolo or Francis Foscari could be summoned from their tombs, and stood each on the deck of his galley at the entrance of the Grand Canal, that renowned entrance, the painter's favourite subject, the novelist's favourite scene, where the water first narrows by the steps of the Church of La Salute—the mighty Doges would literally not recognize one stone of the great city, for whose sake, and by whose ingratitude, their gray hairs had been brought down with bitterness to the grave. The remains of *their* Venice lie hidden behind the cumbrous masses which were the delight of the nation in its dotage; hidden in many a grass-grown court, and silent pathway, and lightless canal, where the slow waves have sapped their foundations for five hundred years, and must soon prevail over them forever.¹

THE GRAND CANAL.—The Grand Canal is to Venice what the Strand is to London, and Broadway to New York—the principal artery of the city's circulation. It is in the form of an S, which is crossed about the middle by the Rialto bridge.

The Grand Canal of Venice is the most wonderful thing in the world. No other town can afford such a beautiful, strange, and fairy-like spectacle: perhaps equally remarkable specimens of architecture may be found elsewhere, but they never occur under such picturesque conditions. There every palace has a mirror to admire its beauty in, like a coquettish woman. The superb reality is doubled by a charming reflection. The waters lovingly caress the feet of those beautiful façades whose brows are kissed by white sunlight, and cradle them in a double sky. The little buildings and the big ships that can get so far seem to be moored expressly as a set-off, or as foregrounds for the convenience of decorators and water-colourists.²

AMERICA IN ITALY.—Amid the charm of northern Tuscany a number of factory chimneys bear witness to the industrial life of the region.

No less surprising is the fluent Americanese that everywhere greets the ear, tripping gaily from the tongues of countless *americani*, as those Italians who have been to either of our continents are jocularly called by those who have not. Incidentally, many of the chimneys are the property of those repatriated *americani*.

In every town that amounts to anything at all, the neat factory girls and men give the morning and the evening a distinctly American sense of rush and scurry—in sharp contrast to their leisurely neighbours—as they obey the big whistles that cut through the melodious appeal of the bells with their imperious summons: "Come! Plunge into my noise of loom and machine, my roar of furnace and grinding of gears, my smoky plumes that are the aura of gold. Forget your *dolce far niente* of the past. Look to the future. Work—hurry—make progress or die. Be independent—and happy!"³

¹John Ruskin, "Stones of Venice" (1853).

²Théophile Gautier.

³A. S. Riggs, in the *National Geographic Magazine* (Oct. 1916).

¹Frances Elliot (Mrs. G.), "Diary of an Idle Woman in Sicily" (1881).

SYNOPSIS OF ITALY

(See Map, p. 45)

BOUNDARIES.—Italy is bounded on the north and northwest by the Alps, which separate it from France, Switzerland, and Austria; on the east by the Adriatic Sea; and on the south and west by the Mediterranean.

CLIMATE.—The climate is generally warm and pleasant; but very hot and dry in the south. The winters in the valley of the Po are cold, and Italy with its evergreen foliage, as it is pictured in the imagination of northern peoples, does not begin until we reach the south of the Apennines. Turin has a mean temperature in January of 33.2°F., and in July of 72.5°F.; Rome has 47.3° and 74.3°F.; Palermo has 52.7° and 75.2°F. Sicily has a climate resembling that of the north of Africa. Speaking generally, Italy lies within the zone of winter rains. The period from June to September is almost rainless. Most rain falls in the north and west.

The hot *sirocco*, blowing from Africa, is prejudicial to health in Italy, while malarial fever prevails in some marshy districts. See *Climate Map of Europe*, pp. 24, 25.

NATURAL PRODUCTIONS.—Agriculture is the occupation of over one-third of the population, *wheat, maize, rice*, and other grains being largely produced. The *vine* is grown in all parts of the country, and much land is under *olives, flax, hemp*, and such *fruits* as the orange, fig, and almond. *Wine, silk, and oil* are produced, and *sulphur, zinc, lead, and iron* are mined. The Alpine slopes pasture *cattle* and supply dairy produce, especially cheese, for export. There are oyster, sardine, and coral *fisheries* on the coast.

MANUFACTURES.—The manufactures are woollen, cotton, silk, hemp, and linen yarns and tissues, leathers, straw and felt hats, furniture, chemical products, paper, agricultural and other machinery, prepared meats, artistic works (such as mosaics, pottery, Venetian glass, alabaster ornaments), etc. Sugar is extracted from beets in large quantities for home consumption.

CHIEF CITIES AND INDUSTRIES OF ITALY

CITY	POP. IN THOUSANDS	PROVINCE	PRINCIPAL INDUSTRIES
ALESSANDRIA*	76	Alessandria	Linens, woollens, silks.
ANCONA*	64	Anconoa	Shipbuilding.
BARİ*	104	Bari	Cotrons, linens, soap, glass, liqueurs.
BOLOGNA*	173	Bologna	Hemp, pottery.
BRESCIA*	83	Brescia	Iron ware, woollens, silks, matches.
CAGLIARI*	62	Cagliari	Lead, zinc, salt.
CATANIA*	211	Catania	Silks, linens.
FLORENCE*	233	Florence	Glass, silks, olives, wheat, stone quarries.
FOGGIA*	76	Foggia	Agriculture.
GENOA*	272	Genoa	Shipbuilding, sugar-refining, cement-work, silverwork.
LUCCA*	75	Lucca	Agriculture, silks.
MESSINA*	127	Messina	Silks, olive oil, oranges, fisheries.
MILAN*	599	Milan	Machinery, silks, cottons, linens, dyeing, printing.
MODENA*	71	Modena	Silks, linens, agriculture, iron-wares.
NAPLES*	678	Naples	Silks, cottons, woollens, automobiles, shipbuilding.
PADUA*	96	Padua	Corn, distilleries, chemicals, breweries, automobiles.
PALERMO*	341	Palermo	Silks, cottons, leather, glass, gloves, wines, fruits.
PARMA*	52	Parma	Silks, woollens, cottons, felt hats.
PERUGIA*	66	Perugia	Velvets, silks.
PISA*	65	Pisa	Cottons, woollens, silks.
RAVENNA*	72	Ravenna	Lace, silks, printing.
REGGIO NELL'EMILIA*	70	Reggionell' Emilia	Linens, silks, cattle, wine.
ROME*	542	Rome	Woollens, silks, earthenware, jewelry, mosaics.
TRAPANI*	60	Trapani	Fisheries.
TURIN*	427	Turin	Silks, wine, olives.
VENICE*	161	Venice	Woollens, linens, glass, iron, coal, timber, coral.
VERONA*	82	Verona	Silks, woollens, hats.

*Capital of province.

CAPITAL.—Rome, on the Tiber. Population 542,125.

CHIEF PORTS.—Genoa, Venice, Naples, Leghorn, Bari, and Brindisi, in Italy; Palermo, Catania, and Messina in Sicily.

COMMERCE.—The chief trade is done with the United Kingdom, the United States, France, and Germany. The trade policy is protective.

CHIEF IMPORTS.—Cotton, wheat, coal, coke, chemicals, colonial produce, yarns, jute and manufactured goods, woollens, raw silk, silkworms' eggs and cocoons, machinery, iron and steel in bars, plates and rails, hardware, raw hides, horses and cows, oils, salt fish, dye-stuffs, tobacco, earthenware, etc.

CHIEF EXPORTS.—Silk, olive oil, wine, candied citron, sienna earths, pastes, coral, rags, boracic acid, raw and thrown silk, hemp, cattle, straw hats, rice, iron, zinc and copper ores, sulphur, marble, fruit, vegetables, fresh and prepared meats, poultry, chemical products, woods, roots, etc., for dyeing and tanning, artistic works, etc.

COMMUNICATIONS.—There are about 11,500 miles of railway and 33,500 miles of telegraph line. In five directions railway lines now lead from northern Italy across the Alps. From Turin the route leads westward by the Mont Cenis tunnel; from Milan there are two routes, one leading north-westward by the Simplon tunnel and one northward by the St. Gothard tunnel; from Verona a line leads northward over the Brenner Pass; from Venice there are several routes to the northeast across the Eastern Alps to Austria. The express overland route to the Orient is by the east coast to Brindisi.

GOVERNMENT.—Italy is a limited monarchy. The legislature consists of a *Senate* of about 390 members and a *Chamber* of 508 deputies elected for five years. Deputies receive \$1,200 annually.

ITALIAN COLONIES

DEPENDENCIES	AREA (sq. miles)	POPULATION
Eritrea (on the Red Sea)	45,800	450,000
Italian Somaliland	139,430	450,000
Tripoli and Cyrenaica	406,000	723,000
Total	591,230	1,623,000

SPAIN

(See Map, p. 46)

Spain with its western neighbour Portugal forms the Iberian Peninsula. The Iberians were the ancient inhabitants of the country. For centuries Spain defended Christendom against the assaults of the Moors, and it is largely due to her heroic resistance that Europe was not submerged by Mohammedanism. In the age of geographical discovery and religious reformation Spain played a mighty part. She brought a large portion of the New World under her sway and established a colonial empire which, in spite of its many failings, planted the roots of whatever civilization exists to-day in Mexico and other Spanish-speaking republics of Latin America. Of her vast colonial empire little remains save the adjacent islands of the Canaries and the Balearic Islands.

The rocky peninsula of *Gibraltar*, "the key of the Mediterranean," is a strongly fortified British naval station and coaling station. It was taken in 1704 after a vigorous bombardment, and was secured to Great Britain by the treaty of Utrecht in 1713.

A BULL-FIGHT.—It is a common saying that a Spaniard will sell his shirt to buy a ticket for the bull-fight, so deep-rooted is the Spanish passion for this brutal spectacle. Picture the arena at Seville on the occasion of a national *fiesta*.

A trumpet blared. Mounted *alguaciles*, or police, tricked out in ancient Spanish costume, on blue saddles, and with tall blue plumes in their hats, rode in and cleared the arena of all stragglers. A door opened, and forth issued the full circus troupe, making a fine show of filigree, and urging their wretched old nags to a last moment of equine pride and spirit. Amid roars of welcome, they flaunted across the sanded enclosure and saluted the presiding officer. He dropped the key of the *toril*, that dark series of cells into which the bulls had been driven some hours before. An *alguacil* caught the key and handed it to the *torilero*, who ran with it toward a second door, ominously surmounted by a great bull's head. Then there was a twinkling of the pink stockings and black sandals. Most of the gay company leaped the barrier, and even the *chulos* who remained in the ring placed themselves within convenient distance of the rail. Some of the *picadores* galloped out, but a few awaited the coming charge, their long pikes in rest. The door on which all eyes were bent flew open, and a bellowing red bull rushed in. The fierce, bloodthirsty, horrible yell that greeted him checked his impetuous onset. For a few seconds the creature stood stock-still, glaring at the scene.

In that strange, maddening sea of faces, that hubbub of hostile voices, the bull, as soon as his blinking eyes had effected the change from the darkness of the *toril* to the glaring light and gaudy colours of the coliseum, caught sight of a horseman with the familiar pike. Here was something that he recognized and hated. Lowering his head, the fiery brute dashed with a bellow at that tinselled figure. Ah, the pike had never been so sharp before! It went deep into his shoulder, but could not hold him back. He plunged his horns, those mighty spears, into the body of the helpless, blindfolded horse, which the *picador*, whose jacket was well padded and whose legs were cased in iron, deliberately offered to his wrath. The poor horse shrieked, plunged, reeled, and

fell, the *chulos* deftly dragging away the armoured rider, while the bull ripped and trampled that quivering carcass, for whose torment no man cared, until it was a crimson, formless heap.

Such sickness swept over me that I did not know what followed. When I looked again, two bloody masses that had once been horses disfigured the arena, and the bull, stuck all over like a hedgehog with derisive, many-coloured darts, had gone down under Guerrita's steel.

It is the part of the mounted *picador* to draw off the first rage and vigour of the bull, weakening him, but not slaying him, by successive wounds. Then the jaunty *banderilleros*, the streamers of whose darts must correspond in colour with their costumes, supply a picturesque and amusing element, a comic interlude. Finally an *espada*, or *matador*, advances alone to despatch the tortured creature. The death-blow can be dealt only in one of several fashions, established by rule and precedent, and the *espada* who is startled into an unprofessional thrust reaps a bitter harvest of scoffs and hisses.

A team of gayly-caparisoned mules with jingling bells had meanwhile trundled away the mangled bodies of the slaughtered animals, fresh sand had been thrown over the places slippery with blood, and the band pealed the entrance of the second bull. This was a demon, black as a coal, with a marvellous pride and spirit that availed him nothing. Horse after horse crashed down before his furious rushes, while the circus, drunk with glee, shouted for more victims and more and more. It was a massacre. At last our hideous greed was glutted, and the *banderilleros* took their turn in baiting the now enfeebled but undaunted bull. Wildly he shook himself, the fore half of his body already a flood of crimson, to throw off the ignominy of those stinging darts. The *chulos* fretted and fooled him with their waving cloaks of red and yellow, till at last the creature grew hushed and sullen. A strain of music announced that the *matador* Fuentes was asking beneath the president's box permission to kill the bull. For my part, I gave the bull permission to kill the man. Fuentes, all pranked out in gray and gold, holding his keen blade behind him and flourishing a scarlet square of cloth, swinging from a rod, the *muleta*, advanced upon the brute. That bleeding body shook with a new access of rage, and the other *espadas* drew near and stood at watch. But even before a blow was struck the splendid, murdered creature sank to his knees, staggered up once more, sank again with crimson foam upon his mouth, and the music clashed jubilantly while Fuentes drove the weapon home.¹

SYNOPSIS OF SPAIN

(See Map, p. 46)

BOUNDARIES.—Spain is bounded on the north by the Pyrenees and Bay of Biscay; on the west by Portugal and the Atlantic; on the east by the Mediterranean; and on the south by the Mediterranean, the Strait of Gibraltar, and the Atlantic.

CLIMATE.—The climate is varied, but on the whole warm, dry, and healthful. The north is temperate, the centre has scorching summers and severe winters, the south and southeast are in some parts almost tropical. The mean temperature at Malaga in summer is 77°F., in winter 57°; at Barcelona 77° and 50°F., and at Madrid 75° and 44.6°F. The rainfall is very small. In the interior between 8 and 12 inches fall per annum; in many districts the destruction of the woods has aggravated this evil.

The hot south wind of Andalusia, known as the *solano*, and the cold north wind called the *gallego*, are peculiar to Spain. See *Climate Map of Europe*, pp. 24, 25.

NATURAL PRODUCTIONS.—(1) *Agriculture.* The most fertile districts are in Valencia and Catalonia, where however, as throughout nearly the whole of Spain, agricultural development depends on irrigation works. The agricultural products comprise *wheat, barley, oats, maize, rice, hemp, and flax.*

The country is well adapted to the cultivation of heat-loving *fruits*, as olives, oranges, lemons, almonds, pomegranates, and dates. The *vine* is cultivated in every province; in the southwest, especially at Jerez de la Frontera, the well-known sherry and tent wine are made; in the southeast, the Malaga and Alicante.

(2) *Minerals.* Spain is rich in *iron, copper, and lead*; but its mineral resources are only partially exploited, and principally by foreign capital under foreign direction.

MANUFACTURES.—The manufactures have been developed to a less extent than the mineral resources of the country would indicate. The most important industrial region is situated around Barcelona in Catalonia, the chief port of Spain. The Catalonians are exceptionally industrious. There is a Spanish proverb which says that the Catalonians win bread from stones.

CHIEF CITIES AND INDUSTRIES OF SPAIN

CITY	POP. IN THOUSANDS	PROVINCE	PRINCIPAL INDUSTRIES
ALICANTE*	55	Alicante	Wines, fruits.
ALMERIA*	48	Almeria	Lead, esparto grass.
BARCELONA*	599	Barcelona	Woolens, cottons, silks, wines, cigarette paper.
BILBAO	94	Vizcaya	Iron, steel, shipbuilding.
CADIZ*	69	Cadiz	Sherry wine, fruits.
CARTAGENA	103	Murcia	Lead, iron, oranges, esparto grass.
CORDOVA*	67	Cordova	Spirits, textiles.
CORUÑA*	47	Coruña	Tobacco, sardine and herring fisheries.
GIJON	55	Oviedo	Cigars.
GRANADA*	81	Granada	Liqueurs, soap, paper, coarse linens, woolens.
JEREZ DE LA FRONTERA	64	Cadiz	Sherry wine.
LORCA	73	Murcia	Soap, earthenware, lead, textiles.
MADRID*	594	Madrid	Leather, fans, umbrellas, chemicals, varnishes, gloves, furniture, soap, tanneries, paper, iron.
MALAGA*	136	Malaga	Wines, oranges, cottons, iron, pottery, olive oil, canary seed.
MURCIA*	125	Murcia	Textiles, flour, leather, hats.
OVIEDO*	55	Oviedo	Hats, napery, arms.
PALMA*	68	Balearic Islands	Shipbuilding.
SANTANDER*	65	Santander	Cigars, breweries, tanneries, sugar, candles, hats.
SEVILLE*	158	Seville	Oranges, tobacco, machinery, chocolate, soap, corks, silks, liqueurs.
VALENCIA*	233	Valencia	Silks, raisins, oranges.
VALLADOLID*	75	Valladolid	Silks, cottons, hats, woolens, jewelry, paper.
ZARAGOZA*	52	Zaragoza	Iron, tanneries, candles, soap, glass, porcelain.

*Capital of province.

CAPITAL.—*Madrid*, on the Manzanares. Population 594,279.

CHIEF PORTS.—On the Atlantic: Cadiz, Santander, Bilbao, Coruña, and Ferrol. On the Mediterranean: Barcelona, Tarragona, Valencia, Alicante, Cartagena, and Malaga.

COMMERCE.—Trade was for many years mostly confined to France and Great Britain; but Germany has now become a serious competitor, while the United States and Belgium share an increasing proportion of Spanish trade. Home manufacture is rigidly protected by high customs duties.

CHIEF IMPORTS.—Raw cotton, spirits, fish, wheat and flour, sugar, coal, timber, woollen manufactures, machinery and railway materials, hides, etc.

CHIEF EXPORTS.—Wine, copper, lead, iron ores, olive oil, raisins, oranges, cork, esparto grass, wool, salt, quicksilver, grapes, etc.

COMMUNICATIONS.—There are a little over 9,000 miles of railroad in operation; and 60,000 miles of telegraph line.

GOVERNMENT.—Spain is a constitutional monarchy. The legislative power is vested in the Cortes with the King. The *Cortes* consist of a Senate and Congress. The latter contains 450 deputies, elected for five years.

COLONIES.—By the war with the United States in 1898 Spain lost Cuba and all her West Indian possessions, besides the Philippine Islands. The Caroline, Pelew, and Ladron Islands (except Guam, which was ceded to the United States) were sold to Germany in 1899.

The colonies of Spain have a total area of about 86,000 square miles, with a population of 236,000.

Fernando Po is a volcanic island in the Bight of Biafra, off the west coast of Africa. It is used as a place of exile for political offenders. The other settlements in west Africa include *Spanish Guinea* (area 12,000 square miles; population 200,000) and *Rio de Oro and Adrar* (area 73,000 square miles; population 12,000).

Morocco. By a treaty signed on November 27, 1912, between France and Spain, the latter acquired a zone or sphere of influence in north Morocco, the capital being Tetuan, where the Sultan's authority is represented by a Khalifa.

PORTUGAL

(See Map, p. 46)

Portugal, the Lusitania of the Romans, is relatively a recent political development. Under the powerful Burgundian ruler John the Great (1385-1433), the Portuguese first projected those Atlantic discoveries on the African coast, fraught with such territorial and commercial advantages

to the nation. Before the close of the fifteenth century a Portuguese navigator, Vasco da Gama, rounded the Cape of Good Hope and explored the Indian Ocean. This was the Golden Age of Portuguese history. Not only was a colonial empire founded in the East, but while Columbus was still voyaging with only partial success in the West Indies, Brazil

¹Katherine Lee Bates, "Spanish Highways and Byways" (1900).

was discovered, and the influence of Portugal was felt from the Amazon to the Indus.

The later history of Portugal is full of revolutions and counter-revolutions. In 1910 the monarchy was overthrown and a republic declared.

LISBON.—Two cities in Portugal dominate the whole country—Lisbon and Oporto. Both are seaports, but Lisbon is the seat of government and has the superior advantage of offering to navigation one of the finest natural havens of the world.

The favourable site of the city is beyond dispute. Its beauty of aspect has been eulogized not only by poets, but by writers little given to fine descriptions. On the north bank of the Tagus, twelve miles from the open sea, Lisbon couched once like ancient Rome upon seven hills, but now overflows the slopes and ridges of eleven. The eye rests upon a succession of amphitheatres, built up with tier upon tier of houses, great and small, which the sorcery of Lusitanian sunlight transfigures into the semblance of a city of palaces and many mansions built up of marbles of delicate and varied hues.

The oldest part of the city, on the east, is the *Alfama*, which dates back to Roman and Moorish times. Its narrow, winding alleys still retain much of their mediæval aspect, almost rivalling the slums of Oporto in their picturesque squalor.

THE NIGHT WATCHMAN.—One survival of olden days when security was less assured is found in the night watchman (*guarda noite*) hired by individual house-owners or residents to parade the street and keep guard on their property. This watchman wears a lantern attached to his belt, and carries a big bunch of skeleton keys to the number sometimes of fifty.

A startled resident has been known to hear movement in the lower part of the house, and then make discovery that his *guarda noite* is below, having entered to assure himself that all is safe. When people return home late at night from theatre or other place of entertainment, there is the useful watchman close at hand waiting with his bunch of keys to open the door. The streets are splendidly lighted, especially on the electric car routes; and though very quiet in the suburbs late at night, in the city there is movement and life until the small hours of the morning; in fact strangers smile and say the Portuguese never go to bed. One reason for this is the late hour to which places of amusement are open. There is a law compelling them to close at midnight, and this fixed time is always pushed to its limit. The electric cars, supposed to run up to midnight, can often be heard passing through the streets up to 2 and even 2:30 early morning. It all depends upon the hour at which the last run begins and upon the delay on the route.¹

THE DOG IN PORTUGAL.—There seem to be two parallel lines of traditionary opinion in regard to the dog. One that comes presumably from Moorish times is that the dog is an accursed beast; the other, which seems to have been inherited from the Gothic races, or perhaps derived something from classic times, sets the dog high in esteem and affection.

In the province of Beira-Alta, a stronghold of the Gothic race, and a pastoral region, the shepherds who live in the mountains hold the very breath and saliva of dogs to be of sovereign effect in wounds and scratches. These shepherds show their esteem for the dog too by having bred the Serra d'Estrella race of wolf-hounds, one of the noblest breeds of dog in existence.

On the other hand, in southern Portugal, where Moorish influence had later sway, and where probably Moorish

blood may run in the peasants' veins more freely than in the north, the howling of a dog by night, which the northern Portuguese disregard, is held to be of very evil augury. A southerner, hearing it after dark, slips his feet for a moment out of the Moorish slippers he wears, and repeats this counter-charm—

“Tude o auguro
Sobre teu couro.”
“On thy leather alight
All the ills of this night.”¹

LIFE IN THE AZORES.—The people of the Azores live very simply, their diet consisting chiefly of maize bread, eggs, a very little fish, and cabbage soup.

The women of the lower classes usually wear a peculiar dress consisting of a long, dark blue cloak (*capote*), to which is attached a huge, stiff hood (*capella*), which quite hides the wearer's face. It forms a complete disguise, and any woman can walk through the streets without the least fear of recognition. When I first saw this quaint outfit, I imagined it the dress of some religious order. Curiously enough, the one ambition of the Azorian working-woman is to be able to discard this really picturesque costume, and parade in the tawdry finery of Paris and London. To be the proud wearer of a hat in the latest fashion is the fond dream of the peasant girl. To earn enough money for this purpose, she willingly braves the perils and discomforts of emigration to America to obtain work in the factories.

It makes one's heart bleed to see the cruel treatment of animals that goes on unchecked and seemingly unnoticed. The donkey is the poor man's steed, and I have seen these patient creatures labouring up the rudely-paved streets almost broken down with their laden panniers, and one or frequently two rustics on their backs. It seems to be the custom to load the animal with as much as it can stagger under, and then for the driver to perch himself on top of the load, punctuating his ride by stabbing at the poor brute with the pointed end of his stick.

The better class of Portuguese in the Azores—those of the old patrician blood—are really charming people. As a mark of esteem and hospitality they never allow you to leave them after a first visit without pressingly “offering you their house.” I had numerous such “gifts” of Azorian property, but, knowing they were not intended to be taken seriously, I made no attempt to take possession!

The unmarried women rarely walk abroad even in daylight without being accompanied by an elderly chaperon. It is curious and amusing to see these couples walking in single file along the streets. I have never seen them walking side by side; and I was told that the custom originated in an endeavour to frustrate the surreptitious passing of *billets doux* or other love tokens. It is, at any rate, the ruling of the Azorian Mrs. Grundy, and though its object is obscure, in view of the liberty given for promiscuous flirtations from the low balconies and *rez-de-chaussée* windows, it is a custom which is likely to die hard.²

SYNOPSIS OF PORTUGAL

(See Map, p. 46)

BOUNDARIES.—Portugal is bounded on the north and east by Spain, and on the south and west by the Atlantic Ocean.

CLIMATE.—Owing to the neighbourhood of the sea the climate of Portugal is moister and more agreeable than that of Spain. Speaking generally, it is temperate and healthful. Great heat is confined to the south. Lisbon has a mean temperature in Jan. of 50°F., and in July of 69.8°F.

The rainfall is considerable. The neighbourhood of Coimbra is one of the wettest parts of the continent. See *Climate Map of Europe*, pp. 24, 25.

NATURAL PRODUCTIONS.—(1) *Agriculture*. The chief products are wheat, barley, oats, maize, flax, hemp, and the vine in elevated tracts; in the lowlands, rice, olives, oranges, lemons, citrons, figs, and almonds. There are extensive forests of oak, chestnut, sea-pine, and cork. The cultivation of the *vine* and the *olive* are among the chief branches of industry; the rich red wine known to us as “port” is shipped from Oporto.

(2) *Minerals*. Portugal is rich in minerals; copper, lead, tin, antimony, coal, manganese, iron, slate, and bay-salt are produced.

MANUFACTURES.—The manufactures are limited, and consist of gloves, textiles, metal and earthenware goods, tobacco, cigars, etc.

¹A. C. Inchbold, “Lisbon and Cintra” (1908).

²Oswald Crawford, “Round the Calendar in Portugal” (1890).

³Annie Dorothy Mawson, “Off the Beaten Track” (1909).

CHIEF CITIES AND INDUSTRIES OF PORTUGAL

CITY	POP. IN THOUSANDS	DISTRICT	PRINCIPAL INDUSTRIES
BRAGA*	30	Minho	Fire-arms, cutlery, jewellery, felt hats.
COIMBRA*	21	Beira	Fisheries, pottery, leather, hats.
LISBON*	435	Estremadura	Shipbuilding, fisheries, silks, soap, tobacco, preserved foods, cement, corks.
OPORTO*	194	Minho	Hats, silks, paper, pottery, lace, glass.
SETÚBAL	25	Lisbon	Lemons, wines, bay-salt, olives.

*Capital of district.

CAPITAL.—*Lisbon*, on the Tagus. Population 435,359.CHIEF PORTS.—*Lisbon*, *Oporto*, and *Setúbal*.

COMMERCE.—The chief trade is with the United Kingdom; next come France, United States, Germany, Spain, and Brazil.

CHIEF IMPORTS.—Hardware, cotton and woollen stuffs, machinery, wheat, sugar, dried fish, coal.

CHIEF EXPORTS.—Half the total exports consists of *wine*, which is the chief industrial product of the country; others are cork, cattle, copper ore, fruits, oil, sardines, and salt.

COMMUNICATIONS.—There are about 2,000 miles of railroad, and 7,000 miles of telegraph lines.

GOVERNMENT.—The Republic of Portugal has two legislative chambers—a National Council and a Senate. The *National Council* is elected for three years by direct suffrage. The *Senate* is elected by the municipal councils. Half the members retire every three years. The two Chambers united constitute the Congress of the Republic. The President is elected by both chambers for four years, and cannot be reelected. He receives an annual salary of \$13,000, with \$6,500 for allowances.

PORTUGUESE COLONIES

DEPENDENCIES	AREA (sq. miles)	POPULATION
<i>Asia</i>		
Portuguese India (Goa, Daman, Diu)	1,470	605,000
Macao	4	80,000
Timor	7,450	300,000
<i>Africa</i>		
Cape Verde Islands	1,475	150,000
Portuguese Guinea	14,000	400,000
São Thomé and Príncipe Islands	442	45,000
Portuguese West Africa (Angola)	484,000	4,119,000
Portuguese East Africa (Mozambique)	293,860	3,120,000
Total	802,701	8,819,000

The *Azores* (capital Ponta Delgada) and *Madeira Islands* (capital Funchal) are integral parts of Portugal.

THE BALKAN STATES

(See Map, p. 11)

The Balkan Peninsula, with its medley of tongues and races, has been the scene of various wars and uprisings, especially during the past two generations. The Balkan States have been the firebrand which on more than one occasion threatened to set the whole of Europe in a blaze. The Balkan Wars, which wrested practically the whole of European Turkey from the Ottoman government, were fortunately localized; although the two powerful onlookers—Russia and Austria—were at one time on the verge of war. But the respite was brief. The assassination of the Archduke Francis Ferdinand at Sarajevo on July 28, 1914, not only set the Balkans once more aflame but kindled a world conflagration.

At the beginning of the nineteenth century the whole of the Balkan Peninsula was directly under Turkish rule; but a land so divided by mountains and sea could not permanently be held by relatively few people of an alien race, more particularly since that race has made itself infamous by its misrule and its atrocities toward subject peoples.

In 1830 Greece gained its independence after a long struggle. The land of Greece, the birthplace of European culture, had no existence as a state during the Middle Ages. Ancient Greece formed part of the Eastern Roman or Byzantine Empire. That empire was so Hellenized that it is commonly spoken of as the Greek Empire, and Constantinople (not Athens) became the real Greek centre. In 1453, when the Turks swept westward, Constantinople and the Balkan provinces fell before the invaders, and the glory of Greece lived only in classic story.

After the war of 1878 Turkey paid the price of Russian victory, and recognized the independence of Roumania, Serbia, and Montenegro. Bulgaria at this time became a self-governing principality, yet still subject to the Porte; but in 1908 the Prince renounced his allegiance and assumed the title of Tsar.

It is essential to the peace of Europe that the integrity of each of these Balkan States should be maintained. A glance at the map will show that Serbia and Bulgaria command the highway to the Near East. Were this highway to be controlled by a Teutonic power, and with a subservient Turkey at the farther end of the line, the result can be readily imagined by any student of international affairs.

CRETE.—The historic island of Crete, which had been captured by the Turks in 1669, declared itself part of the Hellenic kingdom in 1912, and was formally handed over to Greece by the protecting powers (Great Britain, France, Russia, and Italy) on February 15, 1913. Crete is the birthplace of the ardent patriot and renowned statesman Eleutherios Venizelos.

IMPRESSIONS OF MONTENEGRO.—Even in the warmth of a brilliant October day, writes Lee Meriwether, the approach to Montenegro is gloomy and forbidding; it merits its name, "Black Mountain." As we halted a moment on the summit of the pass, one of our fellow-passengers, a German, exclaimed: "*Ein Felsen Meer!*"—a crag sea, a sea of crags. And that is what it is. On every side, as far as the eye can reach, a prodigious mass of huge boulders!

It is said the Montenegrins came originally from Serbia to escape Turkish rule—from which it is plain Turkish rule must have been pretty bad. For, assuredly, no one would elect to live amid a mass of crags and rocks unless the alternative were very disagreeable indeed.

Cetinje, the capital, is situated in a valley hemmed in on all sides by towering rocks. Our automobile descended into this wild valley and dashed down a long street to the post-office. From the post-office we walked to the hotel and felt like pigmies as we passed the big men of Montenegro. I do not recall seeing any man in Cetinje who was less than six feet tall, while most of them must have been six feet three or four inches. And all go armed to the teeth, revolvers, swords, and daggers in their broad belts; their heads thrown back, stalwart and erect, they look as proud and haughty in their bearing as if every man of them were a king. We spent several days in this toy kingdom—for kingdom it now is, the Prince having been recently turned into a king.

The contrast between the rude simplicity of the little village and its pretensions to royalty is amusing. The town has one long street flanked on both sides by modest one and two storey houses; there are a dozen or so short streets which intersect the main street, and on one of these little cross streets are the "palaces" of King Peter and of his son, Prince Mirko. The King's palace is a plain dwelling about as large as a fourth-rate residence in St. Louis; the Prince's palace is a two-storey cottage about as big as the home of an average American carpenter. It touches the houses to its right and left and has no yard in front of it—the little porch abuts the sidewalk. As we strolled by we saw through the

open windows a servant setting His Highness' dinner-table, and presently His Highness, a handsome, athletic young fellow, came out on the front porch and sat there smoking cigarettes. People who passed saluted, and the Prince nodded his head—it was all so plain, so commonplace that the use of royal titles seemed a bit ridiculous.¹

MONTENEGRIN TRAITS.—The Montenegrins present many of the characteristics of a race little affected by modern civilization. Warlike valour constitutes a man's chief claim to distinction. Women occupy an inferior position; they work in the fields, carry heavy burdens, and owing to the drudgery imposed on them from childhood they age rapidly, and are short and stunted.

Dancing is a favourite pastime. Two characteristic forms are the slow and stately ring-dance (*kolo*), in which women sometimes participate, though it is usually performed by a circle of men; and the livelier measure for both sexes (*oro*), in which the couples face one another, leaping high into the air, while each man encourages his partner by rapid revolver-firing.

Women chant wild dirges, generally improvised, over the dead; mourners try to excel one another in demonstrations of grief; and funerals are celebrated by an orgy very like an Irish "wake." Like most imaginative peoples, the Montenegrins are extremely superstitious, and belief in the vampire, demons, and fairies is almost universal. Among the mountains they can converse fluently at astonishing distances.

The Montenegrins take great pride in personal adornment. The men wear a red waistcoat, embroidered with gold or black braid, over which a long plaid is sometimes thrown in cold weather; a red girdle, in the folds of which pistols and yataghans² are placed; loose dark-blue breeches and white stockings, which are generally covered with gaiters. The *opanka*, a raw-hide sandal, is worn instead of boots; patent leather long boots are sometimes worn by military officers, and a few of the wealthier class. The headdress is a small cap (*kapa*), black at the sides and red at the top. . . . The poorer mountaineers are often dressed in coarse sacking, but all without exception carry arms.

The Montenegrins are great smokers, especially of cigarettes; in the districts which formerly belonged to Turkey the men, whose dignity never permits them to carry burdens, may be seen going to market with the *chibûk*, or long pipe, slung across their backs. The mother possesses little influence over her sons, who are trained from their earliest infancy to cultivate warlike pursuits and to despise the weaker sex. Betrothals often take place in early childhood. Young men who are attached to each other are accustomed to swear eternal brotherhood (*pobratimstvo*); the bond, which receives the sanction of the Church, is never dissolved.³ Marriages between Montenegrins and converted Turkish girls are a common source of blood-feuds.⁴

A SERBIAN FESTIVAL.—The most distinctive family celebration of the Serb race is the *Slava*, or celebration of the family saint. This purely Serbian custom is so deeply identified with the Serb race that it is said, "Where the Slava is, there is the Serb." The Slava has probably descended from ancestor-worship, and in pre-Christian times came to refer to a divinity who was the protector of each family or clan.

In pagan times each family and family group had its own family god (similar to the Roman custom). When the Serb families became Christians they baptized their ancient family god along with themselves into the Christian faith and gave him a name of a saint, generally that marking the day of their own baptism, and so he became the patron

saint of the family. His picture, painted or enamelled generally on a golden background in Byzantine style of flatly traced in wood, or even a lithograph, hangs on the wall of every Serbian house. Before it a small oil lamp is suspended, which is lighted on festival occasions.

The word "Slava" in all Slavonic tongues means "glory." It is used by some of them, by the Czechs for instance, as a word of hailing, like "Hurrah" in English. The word "Hosanna" in the Bible is translated "Slava."

On the day of the Slava the Serb house is open to all; a stranger may enter and receive the same welcome and hospitality as that given to family or friend.

A feast is prepared, the important obligatory items of which are the "Kolatch" (cake) and the "Kolyivo." The *Kolyivo* evidently refers to an ancient rite of sacrifice, and is a plate of boiled white wheat, kneaded with nuts and honey or sugar, and iced or decorated in some way with melted or coloured sugars. It is really an offering for the souls of the dead.

The other consecrated dish, the *Kolatch*, is a large flat cake of wheat flour, the top marked with a cross dividing it into four quarters, the spaces containing letters indicating the device "Jesus Christ the Victor."

On the eve of the Slava a priest comes to the house, blesses the water, reads prayers for the dead, and asperges the house and its occupants with a myrtle branch dipped in the consecrated water. Messengers are sent through the village to give general invitation to the Slava or to the ceremonial of Slava eve.

Each guest on arriving on Slava eve calls out, "Master of the house, art thou ready to receive guests?" The *Svetchar*, *i. e.*, the man who is the head of the family celebrating the Slava, answers, "Yes, such guests as thou," and steps forward to embrace the visitor, who says, "May thy Slava be happy!" The host answers, "And thy soul, may it be happy before God!" The guest gives an apple or quince or other fruit to the master of the house and enters. This ceremony is repeated with each newcomer. When all are assembled the wife or daughter of the house enters, carrying a pitcher of water and a small basin and a finely embroidered towel. Coming to each in turn, she pours out a little water over the hands, letting it trickle down into the basin—they never dip their fingers into the basin. When she has gone the rounds, the guests all stand around the table, which does not contain the Kolatch or the Kolyivo, the Svetchar places a very large candle in the centre of the table and lights it. He then takes from the hands of some of the women-folks a small earthen vessel containing live charcoal, upon which he scatters incense. He first incenses the picture of the saint, then in turn each one of the guests. He says, "Brothers, let us pray," and unless there chances to be present some one possessing an especial gift of eloquent expression, they all stand with bowed heads praying in silence. After that the guests sit and begin supper. The host remains standing and serves his guests, pouring out the wine or plum brandy (*slivo-vitza* or *rakia*). After supper come toasts and speech-making.¹

A SERBIAN BURIAL.—Before the body is placed in the coffin a fire is made in it with sulphur and gunpowder and wisps of tow. The same is done to the grave before burial, and at sunset of the funeral day women once more go to the closed tomb and burn upon it the same elements.

When the body is lowered, coins are thrown in—recalling the objects in bronze found in the cinerary urns of the Veneds. Each one present casts in a handful of earth, begging the soul which is starting on its journey to carry messages to those among the loved ones or friends who have passed on into the world beyond. These messages are quite simple and natural, words of love and greeting, such as would be confided to some one of the living who might be setting out to a distant part of the country. Another custom of apparently pagan origin is that of giving "feasts for the soul of the departed."¹

¹Lee Meriwether, "Seeing Europe by Automobile" (1911).

²YATAGHAN, a short, curved, Mohammedan sword, without a guard or crosspiece.

³This custom prevails also in Serbia, Bulgaria, and Roumania.—C. O. S. M.

⁴"Encyclopædia Britannica," 11th edition, vol. 18, p. 769.

¹Prince and Princess Lazarovich-Hrebelianovich, "The Servian People" (1910).

BULGARIAN MARRIAGES.—In the villages the boys marry between fifteen and eighteen, the girls between eighteen and twenty. A husband is nearly always younger than his wife, in order that the wife may be the better able to help her husband in field labour when they start housekeeping.

It would be false delicacy to omit all reference to the primitive custom of *prestana*. If Jack and Jill have made up their minds, they quit the village, or rather Jack makes a pretence of carrying off Jill by force from her home, and on their return they are married by the priest. Such a thing as desertion by the man is absolutely unknown, and a man who did not go before the priest on his return would be shot before sunset. His life would be forfeit both to the law and the public opinion of his country. If parents arrange a marriage that does not recommend itself to either of the parties chiefly interested, the objecting party has only to act in the approved fashion of *prestana* for the parents to give their immediate consent to his or her marriage with some one else. Even when the son and daughter do approve of the marriage arranged for them, they generally consummate it in the national fashion. This ancient custom of carrying off the woman he wishes to marry has a firm hold on the Bulgarian.¹

A CURIOUS CUSTOM.—The following perversion of the established order of things is of interest.

The Bulgarians shake their heads for "yes," and nod for "no". This gives rise to many curious mistakes in the intercourse between Bulgarians and Europeans. Many times have I offered a drink to a man, who shook his head, and I desisted; all the time he meant "yes," and was longing to have that drink. The shake ("yes") is accompanied by a curious shaping of the mouth into a semi-circle — which is very grotesque, and quite inimitable, and particularly ungraceful in young girls with pretty faces. The nod ("no") is accompanied by an ugly raising of the eyebrows.²

ROSE CULTURE.—Rose growing is a popular industry in Bulgaria, as well as the manufacture of attar of roses, the basis of so many perfumes.

The peasants are employed to pick the roses; they then take them to their cottages, and squeeze the juice out in rough wooden presses.

A secondary industry is the making of rose-petal jam, which is as delicious as it sounds if eaten in moderation; for, difficult though it is to imagine, one gets soon tired of both the taste and the scent of roses.

The town of Kazanlik is the centre of the rose gardens, and the visitor to this district does not easily forget his first impression of the sunny southern slopes of the Balkans, if he should happen to be there when these are covered, as far as the eye can reach, with all the most glorious roses in full bloom, their fragrance being wafted to him on every breeze.²

ROUMANIAN TRAITS.—Two dissimilar types are noticeable among the Roumanians. One is fair-haired, florid, and blue-eyed; the other, more frequent among the Carpathians, is dark, resembling the southern Italians. Both alike are hardy, though rarely tall; both, when of the peasant class, are frugal and inured to toil amid the rigours of their native climate.

Proud of their race and country, they acquired with their independence an ardent sense of nationality; and they look forward to the day which will reunite them to their kinsmen in Transylvania and Bessarabia. They have been taught, originally in the interests of Transylvanian Roman Catholicism, to regard themselves as true descendants of

the Romans. The peasants retain their distinctive dress, long discarded, except on festivals and at court, by the wealthier classes. Men wear a long linen tunic, leather belt, white woollen trousers and leather gaiters, above Turkish slippers or sandals. The lowlanders' head-dress is generally a high cylindrical cap of rough cloth or felt, while the mountaineers prefer a small round straw hat. Sundays and holidays bring out a sleeveless jacket, embroidered in red and gold; and both sexes wear sheepskins in cold weather. The linen dresses of women are fastened by a long sash or girdle, wound many times round the waist; the holiday attire being a white gown covered with embroideries, one or more brightly coloured aprons and necklaces of beads or coins. The standard of comfort is lowest along the Danube and in parts of the Dobrudja. As the land becomes higher, the dwellings improve; but, despite the presence of a doctor in each commune, disease is everywhere rife. Many villages are wholly built of timber and thatch, especially amongst the Carpathians, the floors being frequently raised on piles, several feet above the ground. The inner walls are often hung with hand-woven tapestries, which harmonize well with the smoke-blackened rafters, the primitive loom, and the huge Dutch stove characteristic of a prosperous Roumanian farm.

Many pagan beliefs linger on in the country, where vampires, witches, and the evil eye are dreaded by all. The peasants reassure themselves by the use of charms and spells, and by a strict observance of the forms which their creed prescribes. A cross guards every well or spring; every home has its *ikons* or sacred pictures. Church festivals and fasts are kept with equal care

The ceremonies which accompany a wedding preserve the tradition of marriage by capture; a peasant bride must enter her new home carrying bread and salt, and in parts of Wallachia a flower is painted on the outer wall of cottages in which there is a girl old enough to marry. Young men swear eternal brotherhood; girls, eternal sisterhood; and the Church ratifies their choice in a service at which the feet of the pair are chained together. This relationship is morally and legally regarded as not less binding than kinship by birth. The dead are borne to the grave with uncovered faces, and a Roumanian funeral is a scene of much barbaric display. All classes delight in music and dancing.¹

THE JEWS IN ROUMANIA.—The disabilities under which the Jews live in Roumania are typical of the mediæval conditions that obtained in almost every part of Europe up to a century ago, and, in the case of Russia, till the overthrow of the monarchy in 1917.

In Roumania a Jew can neither vote nor hold office in the civil service. He is excluded from the professions; he is not permitted, for example, to become a physician or even open a pharmacy; he is not permitted to live in the rural districts; he may neither own land outside of the town nor work as an agricultural labourer. In the mills and factories not more than 25 per cent. of the employees may be Jews. Although they are practically restricted to business enterprises, Jews may not become members of chambers of commerce. Jews are bound to serve in the army; they pay heavier taxes, proportionately, than other portions of the community; but they are classed under the laws as "aliens not subject to alien protection."²

ATHENS.—Three cities the world honours as the sources of religion, the law, and the "fair humanities" that have made us what we are: Jerusalem, the mother of Christianity; Rome, the stern mistress who taught the world how to rule states and to respect the law; and Athens, in whose pure atmosphere the love of knowledge and the love of beauty first gave a perfect form to art, philosophy, and literature.

The traveller, approaching Athens by sea, lands at the port of *Piræus*, a busy, thriving town. The railway follows

¹J. G. C. Minchin, "The Growth of Freedom in the Balkan Peninsula" (1886).

²W. V. Herbert, "By-Paths in the Balkans" (1906).

¹"Encyclopædia Britannica," 11th edition, vol. 23, p. 829.

²Booker T. Washington, "The Man Farthest Down" (1913).

the line of the south or "Middle Long Wall," which in ancient days formed one of the defences of the capital. In classic times thronging crowds of labourers, merchants, and travellers filled the space between the rows of closely-crowded dwellings which on either side lined these old walls. Now there are not half a dozen houses between Athens and the Piræus.

Driving east up Hermes Street, the main thoroughfare of the city, we pass the *Temple of Theseus*, best preserved of Grecian temples; and at the corner of Æolus Street, which crosses Hermes Street at right angles, we catch a glimpse of the old octagonal *Tower of the Winds*, close under the northern slope of the Acropolis. The ruins on that most wonderful rock drew our eyes irresistibly. It was St. George's Day, and the people were keeping the festival of "George, King of the Greeks."

The crowd wore for the most part the dress and the quick, restless aspect of an English crowd. Here and there you saw an Albanian costume, adopted by the Greeks as the national dress for lack of any other of their own. Blue, close-fitting breeches; white or blue stockings or gaiters; low shoes of red leather, with pointed, tasselled, upturned toes, and no heels; a short black jacket richly embroidered, worn over a red waistcoat; a white embroidered shirt with open sleeves; coloured garters at the knee; and a red girdle supporting an immense leathern pouch, from which protrude pistols and a knife or two; on the head a pointed red flannel cap, like a prolonged Turkish fez falling over upon the side, and ending in a silk tassel.

The most remarkable feature of the costume remains to be described. From 30 to 60 yards of white linen, about 30 inches wide, are gathered in a thickly-plaited skirt, which is starched and worn over the breeches. This is the *fustanella*; and where this habit is kept carefully clean (which is seldom the case with the class of citizens who most affect it) it is strikingly picturesque.

The architecture in the better parts of the city is not unlike the modern part of any European town. In 1832, when Dr. Hill, the venerable American missionary, took up his abode there, he was obliged to live for some months in a ruined tower, as there was literally not a house standing in Athens.

After the Acropolis and Pnyx [public meeting-place], no place at Athens has a deeper charm than the Academy of Plato. We walked one beautiful morning two miles northwest to the olive groves that still mark the place. Then through groves of pomegranates, with their great, solid, deep red blossoms, and on through vineyards where the blood-red of the poppies contrasts with the tender green of the low-trimmed vines.

To the southeast, above the clustering roofs of the modern city, rises the steep, altar-like rock of the Acropolis, still crowned with ruins. Here, in the midst of the grand scenery, in these very olive groves, groups of earnest thinkers talked to Plato, and rendered these academic shades so illustrious, that in all lands the lovers of wisdom and art have been fain to borrow from their groves the name "Academy."¹

A REMODELLED CITY.—When Athens was made the seat of government in 1833, it had only a scant population dwelling among a scene of ruins. To-day it numbers more than 200,000. In 1914, before the outbreak of the Great War, an ambitious scheme was formulated which is expected to convert Athens into one of the great world centres. Thomas H. Mawson, the English city-planner, was commissioned to carry out this stupendous task. The value of the architectural remains will be enhanced by the removal of modern slums and the creation of harmonious surroundings.

At the time I was commissioned to prepare these plans, says Professor Mawson, Greece was undergoing a rebirth or renaissance, having emerged through centuries of subjection into a prosperous and ambitious kingdom, which was ever increasing its power and influence. This renewed vitality was naturally followed by an enormous increase in

the number of visitors made up of scholars and tourists attracted from every part of the habitable globe, but principally from England and the United States. The far-seeing Venizelos realized that this traffic provided a source of great potential wealth to the country and in this view the Royal family, government, and municipality were thoroughly united. Therefore, it is proposed, first of all to clear the entire area included in the site of ancient Athens of every objectionable or defiling erection. . . . The next important feature of the scheme is the rearrangement of the railroad system of the city.

Athens desires to increase its industrial occupations, which at present are largely the working of marble and the manufacture of woollen goods. At present a number of workshops and factories are located in various parts of the city, much to its disfigurement. All of these are to be removed to more economic positions arranged along each side of the railroad, the power to be obtained from one power station. All of the factories will conform to one definite scheme of plan and elevation so as not to injure the æsthetic effect of the city. In close relation with these workshops is to be laid out a large area of land for the housing of the working people on the most hygienic and convenient scale.

ENGLISH LANGUAGE IN ATHENS.—French, of course, is the prevailing foreign tongue, with English pressing it hard for first place. English, indeed, is the family language of the palaces in Athens.

The Royal Family in my day was made up of many nationalities. The King was a Dane; his Queen a Russian; the Crown Princess a sister of the Kaiser; the Princess George of the Bonaparte family; the Princess Nicholas a Russian Grand Duchess; the Princess Andrew a Battenburger; and since they all had English nurses and governesses, and since it was necessary to find some common, linguistic ground for the royal group, English was the prevailing tongue in the royal households; and it is spoken generally at the ministries, in the hotels, and in the larger shops.

Throughout the country, too—and indeed throughout the entire Balkan region—English is much heard, because of the great numbers of Greeks who have returned home from America; and few travellers in the Peloponnesus will fail to recall at almost every railroad station the eager face thrust in at the carriage window and quivering with the demand, "You fellers from America?"

In this recurring question scholars find a persistence of that spirit of Hellenic curiosity which greeted the traveller in the *Odyssey* with, "Who of men and whence art thou; where are thy city and thy parents?"¹

THE NOMAD SHEPHERDS OF GREECE.—The wandering shepherds of modern Greece, known by the generic name of *Vlachs*, form a link with a bygone age. With their brown hooded cloaks, and their crooks across their shoulders, they march with their flocks from one pasture-land to another.

Their days are spent entirely in the open air, and in wet weather or dry they sleep with their flocks, enveloped in their rough frieze cloaks, on the mountain side. In the summer they explore the higher altitudes, and make their halting-place in the lambing season under some dark valonia's² shade. A blanket stretched over crossed sticks serves as a shelter from the sun, while around lie the churns, milk-pails, and cheese-pans, their only household goods. In the winter they come down to the plains and build themselves a frail hut of twigs or rushes, fencing in some sheltered angle of rock with a rude shelter of brushwood to protect their flocks from the wind and weather—the winter quarters (*χειμερία*) and the fold (*μάνδρι*). The women share their free and roving life, but more often take refuge during winter in the villages.

Their diet is of the simplest, being almost exclusively confined to bread in the lambing season, with cheese and

¹G. H. Moses in the *National Geographic Magazine* (Oct., 1915).

²The tall evergreen valonia oak (*Quercus agrifolia*).

¹E. H. Gates.

curds when the milk can be spared for them, and a little wine and tobacco are their only luxuries. Illness is unknown amongst them, and they generally live to a very great age. Gigantic dogs with shaggy coats follow them over the mountains, alert to the master's voice, and trembling at his least reproof, but ferociously savage to all the world besides. The eyes of these hillmen are keen as the hawk's, and their voices reach, without effort, from ridge to distant ridge; the goats understand their uncouth cries, and come in response to the call from heights a mile away.¹

SALONIKI.—Look at Saloniki on the map, and it will not be surprising to learn that the city has long been known to men and that its possession has often been disputed. Though not so old as its two great neighbours, Athens and Constantinople, Saloniki nevertheless has an ancient past. The place was originally founded as an Ionian colony, and was known as Therme, or Therma, from the hot springs which still exist. It fell into the hands of the Persians in 512 B. C. The present city was founded about 315 B. C. by king Cassander of Macedon, and named *Thessalonica* after his wife Thessalonike, a sister of Alexander the Great.

Under the Romans, Saloniki grew greatly in importance. Made a free city, the capital of the surrounding region, it became the home of many Roman colonists, and not a few famous names associate themselves with the town. Cicero lived there for a time in exile. St. Paul was another temporary resident, whose epistles to the Thessalonians we still preserve.

The emperor Nero decorated the city with a colonnade, a few of whose battered caryatides were visible there until a few years ago, under the picturesque name of *las encantadas*—the Enchanted Women. They are now in the Louvre.

Theodosius the Great also lived there in 380, in order to keep his eye on the Goths. After his retirement to Milan, 10,000 of the Thessalonians were butchered in the circus, in punishment for insulting the emperor's lieutenant. St. Ambrose, Bishop of Milan, thundered from the pulpit against the imperial murderer, and Theodosius eventually made a most humiliating public penance.

During the Byzantine period Saloniki became the second city of the empire. Its situation made it the commercial capital of the Balkan Peninsula, and it rivalled Constantinople as a port of traffic between eastern Europe and Alexandria. But its wealth and its comparative remoteness also made it a frequent object of attack. Avars, Goths, and Huns came time and again to its gates. The Saracens captured and sacked it in 904. The Normans descended upon it in 1185.

The ensuing two hundred years were the most unhappy in the troubled history of the Thessalonians, who were fought over and bandied about by Greeks, Bulgars, Serbs, Catalans, Venetians, and Turks.

The latter first appeared on the scene in 1380. They did not definitely take possession, however, till 1430. Then Sultan Mourad II, father of the conqueror of Constantinople, captured the town from the Venetians, gave it over to sack and massacre, carried off seven thousand of the inhabitants into slavery, and changed many of the churches into mosques or tore them down for use in his own constructions. Some of the marbles of Saloniki were carried as far away as Adrianople. For nearly 500 years the Turks remained in undisturbed possession.²

At the end of the Balkan War, the treaty of Bucharest (1913) awarded Saloniki to Greece.

THE OTTOMAN EMPIRE

RISE OF THE OTTOMAN EMPIRE.—Turkey, the "sick man of Europe," has been for some time in the fierce glare of world publicity; and so long as the Turk is in possession of Con-

stantinople—the gateway to the East—he controls the destiny and peace of Europe. Through that gateway lie the Teuton hopes of Oriental and world dominion. A glance at the rise of this waning power will give us a better understanding of present conditions.

The Ottoman Empire is not a national state. It has grown by the domination of a military power over what might have been nations, or parts of nations, if Ottoman militarism had not cut them short. A writer in *The Round Table* briefly outlines the growth of the Ottoman domination:

This Ottoman Power, which has overshadowed so many lands and peoples in Asia and Europe, sprang from small beginnings. Its founder was chief of a little troop of Turkish nomads, who in the thirteenth century wandered into Asia Minor from Central Asia. The Turkish Sultans already established in the country let the wanderer carve himself out a camping-place on their northwestern marches—the hill country behind the Asiatic shores of the Sea of Marmora, looking down upon what was then a Greek coast belonging to the Byzantine Empire. The founder's son turned the camping-ground into a state, and, taking the name of Osman on his conversion from paganism to Islam, bequeathed it to his successors.

The Osmanlis are those who have carried on what Osman began—and they have been faithful to his ideas. In less than three centuries they added to Osman's few square miles of hill country, till their territory stretched from Hungary and Algiers and the Crimea to the Red Sea and the Persian Gulf, and they won the whole of it by military technique. The Osmanlis expanded because they had better drill, better artillery, better military roads than the peoples they overthrew. . . . The instinct for soldiering is the Osmanlis' one and inalienable characteristic.

POLICY TOWARD CONQUERED PEOPLES.—No other military state, not even Prussia, has ever so remorselessly exploited its human material. The Osmanlis' system was Spartan.

They did not take a mere toll of years from grown men's lives, but men's whole lives from infancy—a tribute of so many children from each subject Christian family, every so many years. These children were separated forever from their families at the earliest possible age, educated in a military school as Moslems, and drafted into a standing army, fanatically devoted to their corps, the Osmanli Sultan, and Islam, and with no other ties in the world. The *Janissaries* (or "New Model Army"—as, indeed, they were) made the Ottoman conquests, and each fresh people they brought under the Ottoman domination became a fresh recruiting-ground.

The Ottoman Empire spread with a disastrous momentum, engulfing free peoples and destroying well-grown states—the Byzantine Empire, which had preserved at Constantinople the heritage of ancient Greek civilization; the young, vigorous kingdoms of Bulgaria, Serbia, Bosnia, Hungary; the Roumanian principalities of Wallachia and Moldavia; the Albanian tribesmen; the Greek and French and Italian lordships in the Ægean Islands and Peloponnesus. All these were overthrown by the Osmanlis in Europe, and in Asia their conquests were as thorough and as wide. They conquered impartially, not only Christians but Moslems, not only Moslems but Turks. . . . Their hand was against every man's, and none whom they conquered became reconciled to their rule.

POLICY OF NEGLECT.—The policy of neglect introduced by Sultan Mohammed II, who conquered Constantinople in 1453, regarded the subject peoples simply as raw material for the production of Ottoman requirements—tribute in children and tribute in kind for the Sultan's army, and peasant labour for the estates of the "beys" or feudal retainers whom the Sultans planted on the richest part of the conquered soil. Beyond these servitudes the Ottoman Empire had no use for its subject peoples. They were considered only as *rayah* (cattle).

FORMATION OF "MILLETS."—Provided they remained docile, it was to the Osmanlis' interest that they should shepherd themselves, and Mohammed II encouraged the formation of "millet," or subject national communities, within the Ottoman state.

The "millet" (the most important of which were the Armenian and the Greek) were ostensibly ecclesiastical corporations. At the head of each there was a Patriarch and Council resident in Constantinople, who exercised authority over their nationality through a hierarchy of metropolitans, bishops, and village priests. . . . The Patriarchs of the "millet" were more than religious primates. The administration of civil law among their nationals was largely left in their hands, and their jurisdiction was supported by the force of the Ottoman state. It has been said of this phase of Ottoman domination that countries and peoples prospered under it in proportion to their neglect by the Ottoman government.

¹R. Rodd, "The Customs and Lore of Modern Greece" (1892).

²H. B. Dwight in the *National Geographic Magazine* (Sept., 1916).

DECLINE OF OTTOMAN POWER.—The Ottoman military machine had a limited span of vitality. The invincible Janissaries sank first into a hereditary militia, then into a privileged shopkeeping class. Their privileges were for their sons, and new Christian recruits became unwelcome interlopers. In the seventeenth century the tribute of children was abandoned, through the jealousy of the Janissaries themselves, not through the humanitarianism of the Ottoman government. The military basis of Ottoman domination was sapped, and during the next two centuries the Ottoman territory shrank almost as rapidly as it had expanded before. As the Osmanlis were beaten in war, their subject peoples broke away—some to find a better life under other states, some to found new national states of their own, but all outside the Ottoman dominion and only at the expense of its territorial integrity.

POLICY OF ATTRITION.—Faced by the fact that, as Osmanli rule grew weaker, one subject people after another was awakening to a national life of its own, Abdul-Hamid decided to exploit these national movements within his empire by turning them against one another. Abdul-Hamid reigned from 1876 to 1908 when he was deposed. The Balkan Wars of 1912-1913—first of the Balkan League against the Ottoman Empire, and then of the Confederates against each other—were the direct fruit of Abdul-Hamid's policy.

The Ottoman government emerged from the Balkan War with a territory reduced to part of Thrace, Constantinople, the Straits, and the provinces in Asia, and a population of between 20 and 25 millions (statistics are inexact). In this population there were about 8,000,000 Turks, nearly all living north of a line drawn from Alexandretta to Van; 7,000,000 Arabs (Moslem or Christian) to the south of that line; 2,000,000 Armenians and 2,000,000 Greeks, scattered over the northern half of the empire, the Greeks mostly to the west and the Armenians to the east; and from two to three million semi-independent hillmen.

POLICY OF EXTERMINATION.—The Young Turkish Party, which overthrew Abdul-Hamid in 1908, has carried on a systematic policy of extermination. The Young Turkish motto is "Ottomanization," which means that Turkish habits, education, religion, but above all language, are to be imposed upon every people within the Ottoman frontiers, and that those who cannot be coerced are to be eliminated.

In 1913 the population of Thrace, the only European province to which Turkey could lay any claim, was predominantly Greek, with a Turkish element round Adrianople and some Bulgarians in the mountains toward the northeast. A year later only Turks were left; Greeks and Bulgarians had been driven out across the frontier, stripped of their property and their lands. At the same time the Young Turks began driving out the Greeks from the western coastlands of Asia Minor. They meant to "solve" their Greek problem altogether, and the kingdom of Greece was on the verge of a second war with the Ottoman Empire on this account, when the European War supervened.

ARMENIAN ATROCITIES.—The Armenians are Christians, and are an enlightened and industrious people. The massacres of Armenians was the greatest blot on Abdul-Hamid's rule. But whereas Abdul-Hamid butchered in order to weaken the Armenian nation, the Young Turks set about its complete elimination.

The extermination of the 2,000,000 Armenians is already an accomplished fact. About two-thirds of them were "deported"—men, women, and children—hundreds of miles, for weeks on end, over roadless mountains, to the semi-tropical swamps and deserts on the empire's southern fringes. About half the exiles reached their destinations, and have been dying there since of starvation, exposure, and disease. The other half died of exhaustion on the way, or were murdered by the gendarmes who escorted them and by organized bands of brigands and Kurds. A third of the nation may still be alive—the Armenians in Constantinople and Smyrna were mostly spared; a certain number escaped by conversion to Islam (though this, for

women and girls, involved entrance into a Moslem's harem); about 200,000 escaped to Russia and Egypt. These 200,000 refugees—10 per cent of the Armenians living under Ottoman domination in 1914—are the only Ottoman Armenians whose preservation is assured.

SANCTA SOPHIA.—The first questions every stranger asks as his steamer rounds Seraglio Point from the Marmora, or descends the Bosphorus from the Black Sea, are: "Where is Sancta Sophia?" "Which is Sancta Sophia?"

To catch the earliest possible glimpse of its outline the eye of every traveller is strained. Myths and legends told concerning it are devoured with eager interest. With rapt attention its walls and pillars and arches and mosaics are scanned. In after years, in the quiet of the stranger's home, it is the colossal form of Sancta Sophia which stands out most distinct on the canvas of Constantinople memories.

Nor is it strange. To many Constantinople means nothing but Sancta Sophia. To thousands who have never even heard of the city's wonderful walls, and who have never made a mind-picture of the Bosphorus, the name of its venerable cathedral is a familiar sound. Even to those who know it least it is the synonym of what is grandest, most glorious, most historic, and most sacred in the achievements of Christian architecture.

In one respect Sancta Sophia is unlike every other antiquarian monument of Constantinople. Those other antiquities of the city belong wholly to the past, and have no future.

Sancta Sophia belongs to the past as well. In 537, a whole generation before the birth of Mohammed the Prophet, its great dome swept heavenward as skylike as it does today. Yet that church, we may believe, has a future as glorious as, perhaps more glorious than, its past.

The Church of Sancta Sophia rises on the crest and western side of the first hill. It stands just outside the limits of ancient Byzantium. To-day its confused and shapeless pile, bounded by four massive minarets, encased in gigantic buttresses, made grotesque by wide painted stripes of alternate yellow and white, fills the horizon of the eye from every direction. Like Saint Peter's at Rome, it traces its history by an unbroken chain back to Constantine himself.¹

SYNOPSIS OF THE BALKAN STATES

(See Map, p. 11)

MONTENEGRO

The kingdom of Montenegro lies between Northern Albania on the south and Herzegovina on the north. The surface forms a series of elevated ridges with lofty mountain peaks, many of which are covered with forests. The Montenegrins belong to the Serbian branch of the Slav race, and are members of the Greek Church. A large portion of the country is uncultivable, consisting of forest and mountain pasture, and bare limestone. Large herds of cattle are reared and some small crops are grown. The first railway in the country was opened in December, 1908. It runs from Antivari to the lake of Skutari and is only 21 miles in length.

CLIMATE.—The climate is severe in the higher regions, and comparatively mild in the valleys (mean annual temp. about 58°F.). During the winter the capital is almost inaccessible. See *Climate Map of Europe*, pp. 24, 25.

CHIEF PRODUCTS.—Maize, potatoes, sumac, *castradina* (smoked mutton), hides, and tobacco. The only manufactures are coarse woollens.

CAPITAL.—*Cetinje*. Population 5,300.

PORTS.—Antivari and Dulcigno.

GOVERNMENT.—Montenegro was a principality until 1910, when it was proclaimed a kingdom. The legislative authority is vested in a *Council of State* and a *Skupshchina*, consisting of 76 members elected for four years.

SERBIA

The kingdom of Serbia is separated from Hungary by the Danube and Save, and is bounded on the east by Bulgaria, on the west by Albania and Montenegro, and on the south by Greece. The country is mountainous, containing the remains of formerly extensive forests and uncultivated heaths. The state religion is Greek Orthodox.

CLIMATE.—The climate is "continental." In Belgrade the mean temperature in January is 33.2°F., and in July 67°F.; the winters among the mountains are very severe. See *Climate Map of Europe*, pp. 24, 25.

NATURAL PRODUCTIONS.—Agriculture, which is carried on in a somewhat primitive fashion, is practically the only industry. Almost every peasant cultivates his own freehold, varying from ten to thirty acres. The principal crops are *maize* for home consumption, and *wheat* for export; *flax*, *hemp*, and *tobacco* are also grown, and *silk culture* is carried on to a limited extent. Before the appearance of *Phylloxera* in 1882 wine was exported to

¹E. A. Grosvenor, "Constantinople" (1895).

France and Switzerland, but in 1882-1895 thousands of acres of vines were destroyed. Phylloxera was checked by importing American vines and establishing schools of viticulture.

The raising of live stock, and particularly swine, forms the chief source of wealth for the Serbian peasants. There are government monopolies of tobacco, salt, and petroleum.

CHIEF TOWNS AND INDUSTRIES OF SERBIA

TOWN	POP. IN THOUSANDS	DEPARTMENT	INDUSTRIES
BELGRADE*	90	Belgrade	Brewing, iron-founding, cloth, boots, leather, matches, pottery.
MONASTIR*	60	Bitolj	Flour, cloth.
NISH or NISSA*	25	Nish	Iron-founding.
NOVIBAZAR*	13	Novibazar	Agriculture.
PRIZREN*	21	Prizren	Fire-arms, pottery, glass.
USKUP*	47	Skoplye	Dyeing, weaving, tanning, flour, wine.

*Capital of department.

CAPITAL.—*Belgrade*, on the Danube. Population 90,890.

Carpet weaving is one of the oldest industries in Serbia; *Pirot*, in south-eastern Serbia, is the centre of this industry. The carpets are made of pure wool dyed with natural colours, the process being transmitted from father to son.

CHIEF IMPORTS.—Cottons, hides, machinery, common salt, iron bars, paper, silk.

CHIEF EXPORTS.—Prunes, wheat, maize, pigs, cattle, horses, raw hides. The bulk of the trade is with Austria-Hungary.

COMMUNICATIONS.—There are two main railway lines, *Belgrade-Nish-Vranja*, and *Nish-Caribrod*; also several minor branches, making a total of about 1,000 miles.

There are about 3,000 miles of telegraph lines (6,500 miles of wire), and over 500 miles of telephone lines (5,000 miles of wire).

GOVERNMENT.—Serbia is a limited monarchy. There is only one chamber, the National Assembly (*Narodna Skupština*), consisting of 166 deputies elected by the people. The deputies receive a salary of 15 dinars (\$3) a day and travelling expenses. The executive power is vested in the king and the State Council, partly appointed by the king and partly by the Assembly.

BULGARIA

The kingdom of Bulgaria is bounded on the north by Roumania, on the west by Serbia and Greece, on the east by the Black Sea, and on the south by the Turkish province of Adrianople and the Aegean Sea. The prevailing religion is that of the Orthodox Greek Church.

CLIMATE.—The climate is "continental." The mean temperature of *Sofia* in January is 26.6°F., and in July 71.6°F. See *Climate Map of Europe*, pp. 24, 25.

NATURAL PRODUCTIONS.—The soil yields *grain* (especially maize and wheat), *tobacco*, *wine*, *fruit*; while the horses, cattle, and sheep of Bulgaria are excellent. Agriculture and stock-farming divide the attention of the inhabitants almost equally. *Rose culture* too is popular.

The *mineral resources* are considerable, although, with the exception of coal, they are largely unexploited. They include gold (in small quantities), silver, graphite, pyrite, galena, ochre, manganese, gypsum, etc. Thermal springs, chiefly sulphureous, exist in many localities along the southern slope of the Balkans. Many of these are still frequented as in Roman times, owing to their therapeutic properties.

MANUFACTURES.—The manufacturing industry is still in its infancy, being represented chiefly by domestic and retail industries. Knives, carpets, woollen ribands (*gaitans*), and goats'-hair and cotton stuffs are produced.

CHIEF TOWNS AND INDUSTRIES OF BULGARIA

TOWN	POP. IN THOUSANDS	DEPARTMENT	INDUSTRIES
PHILIPPPOPOLIS*	47	Philippopolis	Rice, attar of roses, cocoons.
PLEVNA*	23	Plevna	Cattle, wine.
RUSTCHUK*	36	Rustchuk	Tobacco, cigarettes, soap, breweries, dye-works, tanneries, brick and tile works, pottery.
SHUMLA*	22	Shumla	Grain, wine, silk, cloth, copper and tin-ware.
SLIVNO or SLIVEN	50	Slivno	Homespuns, wine, silk.
SOPIA*	102	Sofia	Breweries, tanneries, sugar, tobacco, cloth, silk.
VARNA*	41	Varna	Grain, skins, cloth.

*Capital of department.

CAPITAL.—*Sofia*. Population 102,812.

CHIEF PORTS.—*Varna* and *Bourgas*, on the Black Sea; *Rustchuk*, *Sistor*, and *Vidin* on the Danube.

COMMERCE.—The foreign trade follows three main routes—the Danube, the mainland railway, and the Black Sea. The chief trade is with Austria-Hungary and Germany. Up to 1914 considerable trade was done with the United Kingdom, France, and Italy.

CHIEF IMPORTS.—Textiles, metal goods and machinery, colonial wares, leather, building materials, petroleum, and other oils, paper, salt fish, rice, and coal.

CHIEF EXPORTS.—Cereals, live stock, essence of roses, woollens, skins, cheese, eggs, timber, silk cocoons, and tobacco.

COMMUNICATIONS.—There are about 1,600 miles of railway belonging to the state; 4,000 miles of telegraph, with 12,000 miles of wire; and 1,600 miles of telephone line, with 12,000 miles of wire.

GOVERNMENT.—The executive power is vested in the king, assisted by a council of ministers, and the legislative power in a single chamber, the *Sobranje*; or National Assembly, elected for five years.

ROUMANIA

The kingdom of Roumania is bounded on the north by Russia, on the east by Russia and the Black Sea, on the south by Bulgaria, and on the west by Serbia (Danube) and Austria-Hungary (Carpathians). The prevailing religion is that of the Orthodox Greek Church. Many Roumanians are to be found in neighbouring countries, especially in Transylvania and Hungary.

CLIMATE.—The climate is extreme, chiefly because the country is exposed toward the northeast. The heat in summer is often 100°F.; in winter the mercury frequently reaches -4°F., so that the rivers are often thickly covered with ice for weeks at a time. At *Bukharest* the mean temperature in January is 38.3°F., and in July 68°F. See *Climate Map of Europe*, pp. 24, 25.

NATURAL PRODUCTIONS.—The soil is among the richest in Europe, and but for the summer droughts would be also the most productive. *Cereals*, *wines*, and *timber* are the chief products. More than 40 per cent of the agricultural land is in small holdings of 25 acres or less, held by over one million peasant proprietors. The riches of the country consist mainly in its *cattle* and *sheep*. Minerals are said to be abundant, but only *salt* and *petroleum* are worked. The latter is the country's chief industry, and about \$75,000,000 of capital, mostly foreign, is invested in it.

CHIEF TOWNS AND INDUSTRIES OF ROUMANIA

TOWN	POP. IN THOUSANDS	DEPARTMENT	INDUSTRIES
BOTOSANI*	33	Botosani	Starch, flour.
BRAILA*	66	Braila	Grain, timber.
BUKHAREST*	309	Ilfov	Petroleum, distilleries, machinery, wire, nails, cement, soap, candles, paste, starch, paper, buttons, textiles, leather.
BUZAU	30	Buzau	Petroleum, timber, grain.
CONSTANTZA or KUSTENDJI*	28	Constantza	Grain, petroleum. (Black Sea port.)
CRAJOVA*	52	Dolj	Rope, carriages, tanneries.
GALATZ*	73	Covurlui	Saw-mills, paste, flour, chemicals, ropes, petroleum.
JASSY*	76	Jassy	Petroleum, salt, metals, timber, cereals, wine, leather.
PLOYESTI*	57	Prahova	Cardboard, ropes, tanneries, oil.

*Capital of department.

CAPITAL.—*Bukharest*. Population 308,987.

COMMERCE.—Up to 1914 the chief trade was carried on with Germany, Austria-Hungary, Italy, Belgium, France, and Turkey.

CHIEF IMPORTS.—Principally the manufactured goods of western Europe, including metals, textiles, and machinery.

CHIEF EXPORTS.—Wheat, barley, maize, petroleum, beans and oil seeds, wood, cattle, hides, and skins.

COMMUNICATIONS.—There are about 2,400 miles of railway, practically all of which belongs to the state; 5,600 miles of telegraph lines, with 15,700 miles of wire; and 25,000 miles of telephone lines, with 70,000 miles of wire.

GOVERNMENT.—Roumania is a limited monarchy. The legislature consists of a *Senate* of 120 members, and a *Chamber* of 183 members. Members of both houses are paid \$4 a day during the sessions.

GREECE

Greece is a maritime kingdom in the southeast of Europe. As a result of the Balkan Wars of 1912-1913 its area was increased by the addition of portions of Macedonia, Albania, and Thrace, and by the capture of many of the Turkish islands. The country is composed of a continental portion (the southern part of the Balkan Peninsula), and of the islands in the Aegean, Mediterranean, and Ionian seas. The surface is nearly all mountainous; the coasts are elevated, irregular, and deeply indented.

ISLANDS.—The Greek islands include the *Ionian Islands* (Corfu, Leucas, Ithaca, Cephalonia, and Zante), the *Cyclades*, *Eubœa*, *Crete*, and the greater number of the Turkish Archipelago (Lemnos, Mytilene or Lesbos, Chios, etc.). *Crete*, or *Candia*, has an area of 2,950 square miles, with a population of 270,000 Greek Christians and 40,000 Mohammedans. The staple product of Crete is olive oil, chiefly exported as a lubricant. In mediæval times wine was largely produced in the island; and until recently much common black wine was shipped to France for conversion into claret. See p. 284.

CLIMATE.—The coasts and islands have a uniform oceanic climate, with winter rains, closely resembling the climate of Spain and Italy; but the isolated mountain gorges and valleys of the interior suffer from great extremes of heat and cold. At Athens the mean temperature in January is 47.5°F., and in July 78.3°F. See *Climate Map of Europe*, pp. 24, 25.

NATURAL PRODUCTIONS.—Agriculture is the chief industry, carried on principally by peasant proprietors. *Wheat* and *maize* are grown on the plains of Thessaly. *Grapes*, *olives*, and other southern fruits, as well as *cotton* and *tobacco*, are produced. *Currants* (raisins of *Corinth*) are the dried fruits of a small vine which grows luxuriantly in Greece and the Grecian islands. Large flocks of *sheep* and *goats* are kept, but there are few cattle or pigs. *Minerals*, especially iron, lead, silver, and zinc, are worked to some extent.

CHIEF CITIES AND INDUSTRIES OF GREECE

CITY	POP. IN THOUSANDS	NAME OF PROVINCE	PRINCIPAL INDUSTRIES
ATHENS*	167	Attica	Marble, woollens.
CORFU*	27	Corfu	Wines, olives.
KAVALA	45	Drama	Chief outpost for Macedonian tobacco.
LARISSA*	18	Larissa	Leather, cotton, silk, tobacco.
PATRAS*	38	Achaia	Currants, olive oil, olives, citron.
PIREUS	74	Attica	Cotton, machinery, breweries, rope works. (Port of Athens.)
SALONIKI*	160	Saloniki	(Principal Ægean seaport of the Balkan States.) Leather, cotton-spinning, brewing, iron-founding, mastic.
SERES*	18	Seres	Wool, cloth, carpets, rice.
VOLO*	23	Magnesia	Centre of rice industry. (Chief seaport of Thessaly.)

*Capital of province.

CAPITAL.—*Athens*. Population 167,479 (with Piræus, 241,058).

CHIEF PORTS.—Piræus, Patras, Nauplia, Volo, Saloniki, and Kavala on the mainland.

COMMERCE.—The chief trade is with the United Kingdom, the United States, and France.

CHIEF IMPORTS.—Cotton and other manufactures, corn, timber, cattle, hides, sugar, and coal.

CHIEF EXPORTS.—Currants, figs, olive oil, wine, cognac, tobacco, hides, lead, iron ore, magnesium, emery, marble, and sponges.

COMMUNICATIONS.—There are about 1,000 miles of railroad. Before the Balkan Wars (1912-1913) Greece was completely isolated by land from the rest of Europe, but is now being linked up with the European system. There is a ship canal through the Isthmus of Corinth, but it is rarely used by foreign vessels.

There are about 6,000 miles of telegraph lines, with 10,000 miles of wire; and 1,500 miles of telephone lines, with 5,000 miles of wire.

GOVERNMENT.—On gaining its independence in the famous struggle of 1821-1829, after centuries of subjection to Turkey, Greece was in 1830 declared a kingdom under the protection of Great Britain, France, and Russia. The executive is vested in the king and his ministers. The legislative authority is in the hands of the *Boule*, a single chamber of 184 members elected by manhood suffrage for four years. The deputies are paid 4,000 drachmai (\$800) a year, except those living in Athens or in Piræus, who receive only 3,200 drachmai (\$640).

TURKEY IN EUROPE

Until the war of 1912-1913 (Bulgaria, Greece, Serbia, and Montenegro against Turkey), the European dominion of Turkey extended westward to the Adriatic and northward to Bosnia-Herzegovina (Austria). Under the treaty of London (May 30, 1913) the northwest portion of Turkey was a line drawn from Enos, in the Ægean, to Midia, in the Black Sea, thus excluding Adrianople, which had capitulated to the Bulgarians after a prolonged siege. During the second Balkan War (Bulgaria against the other members of the Balkan League) Turkey took advantage of the military difficulties of Bulgaria and reoccupied Adrianople, thus recovering a considerable portion of the vilayet of that name. In 1911-1912 Turkey lost the remaining portion of her African possessions through the occupation by Italy of Tripoli and Cyrenaica, which were ceded under the treaty of Ouchy (1912). Turkey joined forces with the Teutons in November, 1914, and attacked the Allies. Her doom as a European power is in all probability sealed.

European Turkey consists of the vilayets or provinces of Adrianople and Constantinople, and the mutessarifat or district of Chatalja, and is separated from Asia by the Bosphorus at Constantinople and by the Dardanelles (Hellespont), about 40 miles in length, with a width varying from one to four miles—the only political neighbour being Bulgaria, on the northwest.

CLIMATE.—The climate is mild. The mean temperature of Constantinople in January is 42.8°F., and in July 72.5°F.

CITIES AND INDUSTRIES.—*Constantinople*, the capital of the empire, has a population of about 1,200,000. Most of the commerce of the city is in the hands of foreigners and Armenian and Greek merchants; the Turks themselves have little to do with trade on a large scale. *Adrianople*, on the Maritza, has a population of 100,000, and contains carpet factories and distilleries of attar of roses.

GOVERNMENT.—Until recent times Turkey was an absolute monarchy under a Sultan. In 1876 the Sultan proclaimed a constitution, but suspended it in 1878. The peaceful revolution brought about by the Young Turks in 1908 led to its restoration.

Under the constitution the Sultan, who is the protector of the Moslem religion, appoints and dismisses his ministers, concludes all treaties with foreign powers, declares war, is the head of the military and naval forces, and can dissolve parliament. The legislature consists of a *Senate*, whose members are nominated by the Sultan, and a *Chamber of Deputies* elected for four years. Deputies must be Ottomans; they receive 20,000 piastres (about \$900) per session and travelling expenses.

For TURKEY IN ASIA, see page 315.

SHORT TRIPS IN EUROPE

For the American tourist who wishes to see as much of Europe as possible during a short vacation abroad we suggest the following trip. It is one specially recommended in Rolfe's "Satchel Guide to Europe."

THREE WEEKS FROM LONDON TO LONDON

DAY 1. Take the Great Eastern route, via *Harwich*, to *Antwerp*, arriving at about 10 A. M. Spend the rest of that day in Antwerp, going to *Brussels* in the evening (or early next day).

DAY 2. Spend the day and night in *Brussels*.DAY 3. Leave Brussels by morning express (about 10 A. M.) for *Cologne*, via *Liège*, arriving at about 4 P. M.DAY 4. A day in *Cologne*.DAY 5. From *Cologne* to *Bingen* by Rhine steamer (8:45 A. M. to 7 P. M.).DAY 6. From *Bingen* to *Strassburg*, via *Kreuznach* (about 9:40 A. M. to 2 P. M.). This route is shorter and more picturesque than that from *Mainz* (*Mayence*), until the two unite; and by spending the night at *Bingen*, two hours on the Rhine (from 7 to 9 P. M., or later, if the river is low) are saved. Even if one wants to visit *Mainz*, it is pleasanter to stop at *Bingen* and go on by rail next morning.From *Strassburg* one has a choice of three routes to Switzerland: (1) direct to *Bâle*, via *Mülhausen*, or (2) via *Appenweier* and *Freiburg*; or (3) to *Schaffhausen*, via *Appenweier*, *Offenburg*, and the *Black Forest Railway*. Going to *Bâle* by either route, he will arrive early in the evening, and may, if he chooses, push on to *Lucerne* the same night, arriving between 9 and 10 P. M. If he spends the night in *Bâle*, he can reach *Lucerne* at about 10 A. M. next day. We advise him, however, to take the *Black Forest* route, as follows:—DAY 7. *Strassburg* to *Schaffhausen* (12 M. to 6:15 P. M.).DAY 8. *Schaffhausen* to *Zurich* (2 hours), dividing the rest of the day between the two towns.DAY 9. From *Zurich* to *Zug* by rail (1 hour), over *Lake Zug* by steamer to *Arth* (about 1 hour), and up the *Rigi* by the railway on that side of the mountain; thence, after an hour or two on the summit, down by the other railway to

Vitznau, where take the steamer for *Flüelen*, and thence to *Lucerne*, when the boat returns. All this can be comfortably done in one day, reaching *Lucerne* at about 7 P. M.

DAY 10. After a morning walk about *Lucerne*, leave at about 11 A. M. for *Alpnach* and the *Brünig*, reaching *Brienz* about 4 P. M. Go on by steamer (about 20 minutes) to *Giessbach* and spend the night there.DAY 11. To *Interlaken* by steamer over *Lake Brienz*, arriving about noon, and spending the rest of the day there.DAY 12. Devote this day to an excursion to *Lauterbrunnen* and *Grindelwald* by railway via *Zweilütschinen*; or take the railway from *Lauterbrunnen* over the *Wengern Alp*, returning to *Interlaken* by rail from *Grindelwald*.The excursion from *Lauterbrunnen* to *Mürren* may be substituted for that to *Grindelwald* by the *Wengern Alp*. It is hard to choose between the two, so far as the scenery is concerned; but the *Mürren* trip is shorter and much easier now that it can be made by rail.DAY 13. To *Bern* in the morning, and thence to *Fribourg* in the afternoon.DAY 14. To *Lausanne*, and by night express to *Paris*.DAYS 15-19. Five days in *Paris*.DAY 20. To *Rouen* by morning train.DAY 21. To *London* via *Dieppe* (most convenient route).If one objects to travelling on Sunday, he should arrange, if possible, to be in *Brussels* (2d day) or *Cologne* (4th day) on Sunday, and spend the next Sunday at *Schaffhausen* or *Zurich*, adding one day to the twenty-one above. The third Sunday would be spent in *Paris* in either case.*Heidelberg* may be substituted for *Strassburg* by going (6th day) from *Bingen* to *Heidelberg* via *Mainz* (about 4 hours) and next day from *Heidelberg* to *Schaffhausen* (about 10:30 A. M. to 6:15 P. M.).

A SHORT RUN INTO NORTHERN ITALY

DAY 1. Go from *Lucerne* (Day 9 above) to *Milan* by *St. Gothard Railway* (about 10 A. M. to 5:30 P. M.). By leaving *Lucerne* an hour earlier, one can go by steamer over the *Lake to Flüelen*, taking the train at the landing there.

DAY 2. Leave *Milan* at about 1 P. M. for *Venice*, arriving at about 7 P. M.

DAYS 3, 4. Two days in *Venice*.

DAY 5. To *Verona* by morning train (about 3 hours), and thence back to *Milan* in the evening.

DAY 6. From *Milan* to *Lucerne* by St. Gothard.

Two days more will enable one to go from *Milan* to *Genoa* (about 4 hours by rail) and back, giving some additional time in the former city and ample time for seeing the latter.

The tourist can avoid returning from Italy by the same route, and see a good deal of Alpine scenery besides, if he takes the *Brenner* road from *Verona* to *Innsbruck*, and on the next day the *Arlberg* road from there to *Constance*, *Zurich*, or *Lucerne*. Leaving *Innsbruck* at about 9 A. M. he will reach *Bregenz* about 2 P. M. and *Constance* by steamer about 5 P. M.; or *Zurich* (by railway) at about 6 P. M.; or *Lucerne* about 11 P. M.

The route may be reversed (and combined with the tour above) by going from *Zurich* (Day 9) to *Innsbruck*; thence to *Verona*; thence to *Venice*; thence direct to *Milan*; and thence over the St. Gothard to *Flüelen* and *Lucerne*. A day can then be given to the Lake and the Rigi; after which the trip may be continued over the *Brünig* as above (Day 10).

If two days more can be spared for northern Italy, the time may be well devoted to the *Lakes*, taking a portion of the route described below. Instead of going through from *Lucerne* to *Milan*, stop at *Lugano* (about 3 P. M.), next day go to *Porlezza*, *Menaggio*, and *Bellagio* and next to *Como* and *Milan*. If preferred, the other half of the route can be taken; that is, from *Lugano* by *Ponte Tresa*, *Luino*, *Locarno*, *Pallanza* (or *Baveno*), and *Arona* to *Milan*.

If this little tour among the Lakes be taken on leaving Italy, either of the half-routes will simply be reversed.

THE ITALIAN LAKES

For a short excursion taking in Lakes *Como*, *Lugano*, and *Maggiore*, we commend the following: From *Milan* by rail to *Como*; thence by steamer to *Bellagio*. Spend the rest of the day and the night there, visiting the *Villa Serbelloni* for the loveliest view in all Italy. Next morning, go by steamer to *Menaggio*, thence by railway to *Porlezza* on *Lake Lugano*, and by steamer to *Lugano*; spending the afternoon and night there, or going on by steamer to *Ponte Tresa*, and by railway to *Luino* on *Lake Maggiore*. From *Luino* go up the lake by steamer to *Locarno*, and down by the return boat to *Pallanza* or *Baveno*. Visit the *Borromean Isles*, and next morning take the steamer to *Arona*, and rail back to *Milan*. If you leave Italy by the St. Gothard route, go down *Lake Maggiore* from *Luino* to *Pallanza*, then up to *Locarno*, and by rail to the St. Gothard.

NORWEGIAN FIORDS

This is a most delightful trip in summer. Steamers leave Newcastle, Hull, Leith, and Aberdeen, and cross the North Sea to *Skudesnæs*. The sailing is then continued for hundreds of miles through the magnificent scenery of the coasts and fiords of Norway, protected from the ocean by a series of outlying islands, occasionally varied by short excursions on shore. The trip is generally continued through the *Hardanger Fiord*, past *Bergen*, through the *Sogne Fiord*, and past *Molde* to *Trondhjem*; which includes the most interesting part of the Norwegian coast. Those who have more time and money at their disposal often continue the journey right along the coast of Norway to *Hammerfest* and the *North Cape*, in order to see the Midnight Sun.

AFRICA

THE DARK CONTINENT.—Africa is rapidly losing its claim to the distinguishing title of "the Dark Continent," for there are few parts of that vast continent that have not been explored by intrepid Europeans. If by "dark" we allude to the barbarism of the African tribes, then the designation will hold good for many years to come. The opening up of Africa is one of the most marvellous achievements of our own times.

Until the close of the Napoleonic wars, the greater part of Africa was practically unknown to Europeans. A glance at old maps will reveal the ignorance that then prevailed. This was the period when, as Swift satirically said—

"Geographers, in Afric maps,
With savage pictures filled their gaps,
And o'er unhabitable downs
Placed elephants for want of towns."

ERA OF EXPLORATION.—Among those who yearned to fill in the gaps and to become acquainted with the "regions beyond" was that great British missionary and explorer *David Livingstone*. In 1849 he crossed the Kalahari desert from south to north and reached Lake Ngami. Within the next seven years Livingstone traversed the continent from west to east, tracing the *Zambezi* to near its source, and discovering the southernmost tributaries of the Congo. During these wanderings he discovered the celebrated *Victoria Falls* (November, 1855), so named in honour of the queen of England. Next he explored the Lower *Zambezi*, the *Shiré River*, and *Lake Nyasa*. A third time he returned to the *Zambezi* to find out what lay beyond *Lake Nyasa*. Thus he discovered *Lakes Bangweolo* and *Mweru*, and the south end of *Lake Tanganyika*; the upper end of *Tanganyika* had been previously visited by *Burton* and *Speke* (1858). Fi-

nally *Livingstone* discovered the *Lualaba*, the upper course of the Congo, which he believed to be the head-stream of the Nile, and firm in that belief *Livingstone* died his lonely death in the heart of Africa. No single explorer has done so much for African geography as *Livingstone*. "In the annals of exploration of the Dark Continent," wrote *Stanley*, "we look in vain among other nationalities for a name such as *Livingstone's*. He stands preëminent above all; he united in himself all the best qualities of other explorers."

Livingstone's example and death acted as an inspiration. His work was carried on by the traveller who came to his rescue—*Stanley*—and by another relief expedition under *Cameron*. The latter tramped right across Central Africa on foot from the *Zanzibar* coast to *Angola*. *Stanley*, a Welshman by birth, set himself to solve the mystery of the *Lualaba* (*Livingstone's* river), and in spite of almost insuperable difficulties—cutting his way through miles of forest and battling with cannibal tribes—proved that the *Lualaba* and the Congo are one stream by following the river to the Atlantic Ocean.

Meanwhile other British explorers, *Speke* and *Grant*, had solved the riddle of the Nile; while another explorer, *Samuel Baker*, discovered the *Albert Nyanza*, the western reservoir of the Nile.

No Negro race cared whence the Nile came or whither it flowed. Interest in geographical problems is almost the exclusive heritage of the Caucasian. This is the human race which for some three thousand years has felt first a flickering curiosity, latterly an intense desire, to wrest the secret of the Nile sources from the heart of Africa. Its aim is accomplished. The main features of the Nile system are placed on the maps of civilized men.¹

¹Sir Harry Johnson, "The Nile Quest" (1903).

DIAMONDS AND GOLD.—In South Africa the gaps in the map were being rapidly filled up. The finding of diamonds in 1869 caused a rush to the valley of the Vaal River, and led to conflicts between the Dutch and British authorities. The development of the Witwatersrand (the "Rand") mines from 1887 led to a further rush and to other clashes with the Boers, culminating in the South African War.

SCRAMBLE FOR AFRICA.—In the early 'eighties began the great scramble for Africa on the part of European nations. The Germans, seeking to rival the British colonial empire, began to seize large tracts in southern and central Africa. The French also sought to extend their power into the Sahara and the Niger valley. In order to prevent its colonies from being cut off from the interior, Great Britain was forced to make similar seizures. Thus it came about that in a few years practically every part of the African continent that had not been previously attached was carved into European protectorates and spheres of influence.

CECIL JOHN RHODES.—One of the principal promoters of British expansion was Rhodes, the great empire-builder, whose dream was to extend the British dominions from the Cape to the Zambezi—"From Lion's Head to Line." With his enormous wealth amassed in the gold and diamond fields of South Africa, and aided by Dr. (later Sir L. S.) Jameson and by the famous lion-hunter Selous, his ambitious scheme was almost realized and Rhodesia was placed upon the map. The German colony of East Africa barred his northern progress; but the Great War swept the barrier away, though Rhodes did not live to see this "all red" path from the Cape to the Suez Canal.

RACES OF AFRICA

The races of northern Africa are more akin to the races of southern Europe than to those of central and southern Africa. In fact, the north of Africa forms one region with the south of Europe in respect of structure, vegetation, climate, and race. In describing the races of Europe (see p. 243) we introduced the Mediterranean race. This race may be regarded as including the Hamites and the Semites, who together make up the bulk of the population of northern Africa.

HAMITES.—The Hamites have dark skins, well-formed features, and frequently frizzly (but not woolly) hair. To the western division of this group belong the Berber peoples north of the Sahara, the Tuaregs of the western Sahara south of Algeria, and the Fulahs, a Sudanese people with a mixture of Negro blood. To the eastern division belong the Fellahin and the Copts of Egypt, the Bejas between the Middle Nile and the Red Sea, and the Gallas and the Somali between the head-streams of the Nile and the Indian Ocean.

SEMITES.—The Semites have curly and abundant hair, long skull, oval face, and prominent nose, either straight or aquiline. The Semites are Caucasians, and in ancient times included the Babylonians, Assyrians, Phœnicians, and other peoples of southwestern Asia. They are now chiefly represented by the Jews and Arabs. The home of the Arabs is the Arabian peninsula. They are an enterprising race, and have spread not only over western Asia but over a large part of Africa, where their blood is largely intermingled with that of other races. The nomadic Arabs of northern Africa are mostly pure Semites, while the Moors dwelling in towns are of mixed descent. The Abyssinians are a mixture of Arab and Hamitic elements. As we go farther south we find the racial distinctions much less clearly de-

finer. This is largely due to the absence of natural barriers, and the consequent ease of communication between the various races.

NEGROES.—The Negroes belong to the typical African branch of the Ethiopian race, and are characterized by tall stature and often powerful physique, flat broad nose, woolly hair, thick everted lips, prominent jaws with large teeth, and dark brown to sooty black skin. The true Negroes are found in the Sudan; they have extended north into the desert and south to the coast of Upper Guinea.

NEGROIDS.—The Negroes have intermingled with other stocks, for example, with Hamites in the north and with Bushmen in the south; and these mixed Negro races are known generally as Negroids. In central and southern Africa there is a group of languages known as *Bantu*. The native tribes speaking any of these Bantu languages or dialects are commonly called Bantus. In reality they are *Bantu Negroids*, for the Bantus do not properly form a racial unit. They are usually shorter than the true Negroes and their skin is not so dark. The Bantu Negroids form three important groups in South Africa: (1) The Bechuanas and Basutos, in the centre and extending eastward to the Drakenbergs; and in the upper basin of the Zambezi, the Barotse and the Mashonas. (2) The warlike Zulus and the Matabele, east of the Drakenbergs. The general term *Kaffirs* is often applied to the Zulus, as well as to other Bantu tribes occupying the region between Cape Province and Natal. (3) The Hereros of Damaraland and kindred tribes on the west of the continent.

BUSHMEN.—The Bushmen are a race of nomadic hunters chiefly inhabiting the Kalahari desert. They are very short (usually under five feet), with a flat triangular face, a leathery yellow skin, and short woolly hair growing in tufts. They are regarded as the aborigines of central and southern Africa, related to the Pygmies.

HOTTENTOTS.—Still another native race, and one that has probably sprung from a blending of the Bushmen and the Bantus, is found in South Africa—the Hottentots. The skin of the Hottentot is yellowish brown, and he is slightly taller than the Bushman. The purest Hottentots are the *Namas* of Namaqualand (or Namaland) of Southwest Africa. A great number are scattered throughout Cape Province, but these are mostly of mixed Hottentot and Bantu or Boer descent.

PYGMIES.—In the dense forests of equatorial Africa are tribes of Pygmies, or *Negrillos* as they are scientifically called to distinguish them from the *Negritos* or Asiatic Pygmies. The average height of the *Negrillos* is not more than four feet six inches. They have crisp, curly hair; large ape-like mouth; receding chin; an abundance of fine woolly hair on the body; and a general ape-like appearance. They have a dark yellowish skin, and their feet are large, and bent slightly inwards. They wear practically no clothing, and their dwellings are simply arbours made of interlaced branches and leaves, with a small hole near the bottom into which the Pygmy crawls on all fours. Like the Bushmen, they are expert with the bow and poisoned arrows. The *Negrillos* use arrows as a medium of exchange. For instance, ten to fifteen arrows will purchase a wife among these forest dwarfs.

LATER IMMIGRANTS.—In various parts of Africa there are settlements of Europeans, besides a number of East Indians, Malays, Chinese, and other Asiatics. In South Africa the half-breeds are commonly called *Cape boys* or *Cape girls*, as the case may be. When the writer was in South Africa, he was often amused by these Cape boys claiming to be "Scotch."

VICTORIA FALLS.—The Victoria Falls in the river Zambezi were discovered by Livingstone in November, 1855. Livingstone approached them from above and gained his first sight of the falls from the island on its lip now named after him. Five years later Livingstone, with Dr. (afterward Sir John) Kirk, made a fuller investigation of these marvellous falls.

We landed at the head of Garden Island, which is situated near the middle of the river and on the lip of the Falls. On reaching that lip and peering over the giddy height, the wondrous and unique character of the magnificent cascade at once burst upon us.

It is rather a hopeless task to endeavour to convey an idea of it in words, since, as was remarked on the spot, an accomplished painter, even by a number of views, could but impart a faint impression of the glorious scene. The probable mode of its formation may perhaps help to the conception of its peculiar shape. Niagara has been formed by a wearing back of the rock over which the river falls, and, during a long course of ages, it has gradually receded, and left a broad, deep, and pretty straight trough in front. It goes on wearing back daily, and may yet discharge the lakes from which its river—St. Lawrence—flows. But the Victoria Falls have been formed by a crack right across the river, in the hard, black, basaltic rock which there formed the bed of the Zambezi. The lips of the crack are still quite sharp, save about three feet of the edge over which the river rolls. The walls go sheer down from the lips without any projecting crag, or symptom of stratification or dislocation. When the mighty rift occurred, no change of level took place in the two parts of the bed of the river thus rent asunder; consequently, in coming down the river to Garden Island, the water suddenly disappears, and we see the opposite side of the cleft, with grass and trees growing where once the river ran, on the same level as that part of its bed on which we sail. The first crack is, in length, a few yards more than the breadth of the Zambezi, which by measurement we found to be a little over 1,860 yards, but this number we resolved to retain as indicating the year in which the Fall was for the first time carefully examined.

The main stream here runs nearly north and south, and the cleft across it is nearly east and west. The depth of the rift was measured by lowering a line, to the end of which a few bullets and a foot of white cotton cloth were tied. One of us lay with his head over a projecting crag, and watched the descending calico, till, after his companions had paid out 310 feet, the weight rested on a sloping projection, probably 50 feet from the water below, the actual bottom being still farther down. The white cloth now appeared the size of a crown piece. On measuring the width of this deep cleft by sextant, it was found at Garden Island, its narrowest part, to be eighty yards, and at its broadest somewhat more. Into this chasm, of twice the depth of Niagara Falls, the river a full mile wide, rolls with a deafening roar; and this is *Mosi-oa-tunya* or the Victoria Falls.¹

WITH SPEKE IN UGANDA.—The English explorer, John Hanning Speke, started out with his expedition of over 200 men from Zanzibar in October, 1860, in quest of the source of the Nile. He encountered illness on the march, besides the hostility and extortion of the natives. Arriving at the capital of Uganda, Speke was detained by the king, Mutesa, for several months, but at last being provided with guides he reached the spot (July 28, 1862) where the Nile issued from the Victoria Nyanza lake. Thus the problem which had baffled all former efforts—extending over two thousand years—was solved.

During his enforced stay at the court of the tyrant of Uganda, Speke became a great favourite. The young king was very trying to deal with, and not infrequently Speke intervened to save the lives of queens or pages who for a

mere nothing were condemned to a cruel execution. On one occasion a picnic on the shores of the Victoria Nyanza was attended by the following incident. One of Mutesa's wives, "a most charming creature, and truly one of the best of the lot, plucked a fruit and offered it to the king, thinking, doubtless, to please him greatly; but he, like a madman, flew into a towering passion, said it was the first time a woman had ever had the impudence to offer him anything, and ordered the pages to seize, bind, and lead her off to execution. These words were no sooner uttered by the king than the whole bevy of pages slipped their cord turbans from their heads, and rushed like a pack of cupid beagles upon the fairy queen, who, indignant at the little urchins daring to touch her majesty, remonstrated with the king, and tried to beat them off like flies, but was soon captured, overcome, and dragged away, crying on the names of the Kamuraviona and 'Mzungu' (myself) for help and protection; whilst Lubuga, the pet sister, and all the other women clasped the king by his legs, and kneeling, implored forgiveness for their sister. The more they craved for mercy, the more brutal he became, till at last he took a heavy stick and began to belabour the poor victim on the head.

"Hitherto I had been extremely careful not to interfere with any of the king's acts of arbitrary cruelty, knowing that such interference, at an early stage, would produce more harm than good. This last act of barbarism, however, was too much for my English blood to stand; and as I heard my name, 'Mzungu' (i. e., 'White-man') imploringly pronounced I rushed at the king, and staying his uplifted arm, demanded from him the woman's life. Of course I ran imminent risk of losing my own in thus thwarting the capricious tyrant; but his caprice proved the friend of both. The novelty of interference even made him smile, and the woman was instantly released."¹

STANLEY'S FINDING OF LIVINGSTONE.—How Stanley was sent by the proprietor of the New York *Herald* to search for Livingstone, how he overcame innumerable difficulties and dangers and at length (November 10, 1871) found the great explorer whom the world believed to be either lost or dead, and, above all, the dramatic meeting of the two white men in the heart of Africa, are among the most stirring pages in the records of African exploration.

We were now about three hundred yards from the village of Ujiji, and the crowds are dense about me. Suddenly I hear a voice on my right say:

"Good morning, sir!"

Startled at hearing this greeting in the midst of such a crowd of black people, I turn sharply around in search of the man, and see him at my side, with the blackest of faces, but animated and joyous—a man dressed in a long white shirt, with a turban of American sheeting around his woolly head, and I ask:

"Who the mischief are you?"

"I am Susi, the servant of Dr. Livingstone," said he, smiling, and showing a gleaming row of teeth.

"What! Is Dr. Livingstone here?"

"Yes, sir."

"In this village?"

"Yes, sir."

"Are you sure?"

"Sure, sure, sir. Why, I leave him just now."

"Good morning, sir," said another voice.

"Hallo," said I, "is this another one?"

"Yes, sir."

"Well, what is your name?"

"My name is Chumah, sir."

"What! are you Chumah, the friend of Wekotani?"

"Yes, sir."

"And is the Doctor well?"

"Not very well, sir."

"Where has he been so long?"

"In Manyema."

¹David and Charles Livingstone, "Expedition to the Zambezi and Its Tributaries" (1866).

¹J. H. Speke, "Journal of the Discovery of the Source of the Nile" (1863).

"Now, you Susi, run, and tell the Doctor I am coming."

"Yes, sir," and off he darted like a madman.

But by this time we were within two hundred yards of the village, and the multitude was getting denser, and almost preventing our march. Flags and streamers were out; Arabs and Wangwana were pushing their way through the natives in order to greet us, for, according to their account, we belonged to them. But the great wonder of all was, "How did you come from Unyanyembe?"

Soon Susi came running back, and asked me my name; he had told the Doctor that I was coming, but the Doctor was too surprised to believe him, and, when the Doctor asked him my name, Susi was rather staggered.

But, during Susi's absence, the news had been conveyed to the Doctor that it was surely a white man that was coming, whose guns were firing and whose flag could be seen; and the great Arab magnates of Ujiji . . . had gathered together before the Doctor's house, and the Doctor had come out from his veranda to discuss the matter and await my arrival.

In the meantime, the head of the Expedition had halted, and the kirangozi [guide] was out of the ranks, holding his flag aloft, and Selim said to me, "I see the Doctor, sir. Oh what an old man! He has got a white beard." And I—what would I not have given for a bit of friendly wilderness, where, unseen, I might vent my joy in some mad freak, such as idiotically biting my hand, turning a somersault, or slashing at trees, in order to allay those exciting feelings that were well-nigh uncontrollable. My heart beats fast, but I must not let my face betray my emotions, lest it shall detract from the dignity of a white man appearing under such extraordinary circumstances.

So I did that which I thought was most dignified. I pushed back the crowds, and, passing from the rear, walked down a living avenue of people, until I came in front of the semi-circle of Arabs, in the front of which stood the white man with the gray beard. As I advanced slowly toward him I noticed he was pale, looked wearied, had a gray beard, wore a bluish cap with a faded gold band round it, had on a red-sleeved waistcoat, and a pair of gray tweed trousers. I would have run to him, only I was a coward in the presence of such a mob—would have embraced him, only, he being an Englishman, I did not know how he would receive me; so I did what cowardice and false pride suggested was the best thing—walked deliberately to him, took off my hat, and said:

"Dr. Livingstone, I presume?"

"Yes," said he, with a kind smile, lifting his cap slightly.

I replace my hat on my head, and he puts on his cap, and we both grasp hands, and I then say aloud:

"I thank God, Doctor, I have been permitted to see you."

He answered, "I feel thankful that I am here to welcome you."

I turn to the Arabs, take off my hat to them in response to the saluting chorus of "Yambos" [how are you?] I receive, and the Doctor introduces them to me by name. Then, oblivious of the crowds, oblivious of the men who shared with me my dangers, we—Livingstone and I—turn our faces towards his *tembe* [house]. He points to the veranda, or rather, mud platform, under the broad overhanging eaves; he points to his own particular seat, which I see his age and experience in Africa has suggested, namely, a straw mat, with a goatskin over it, and another skin nailed against the wall to protect his back from contact with the cold mud. I protest against taking this seat, which so much more befits him than me, but the Doctor will not yield: I must take it.

We are seated—the Doctor and I—with our backs to the wall. The Arabs take seats on our left. More than a thousand natives are in our front, filling the whole square densely, indulging their curiosity, and discussing the fact of two white men meeting at Ujiji—one just come from Manyuema, in the west, the other from Unyanyembe, in the east.

Conversation began. What about? I declare I have forgotten. Oh! we mutually asked questions of one another, such as:

"How did you come here?" and "Where have you been all this long time?—the world has believed you to be dead."

Yes, that was the way it began; but whatever the Doctor informed me, and that which I communicated to him, I cannot correctly report, for I found myself gazing at him, conning the wonderful man at whose side I now sat in Central Africa. Every hair of his head and beard, every wrinkle of his face, the wanness of his features, and the slightly wearied look he wore, were all imparting intelligence to me—the knowledge I craved for so much ever since I heard the words, "Take what you want, but find Livingstone."¹

MATRIMONIAL MATCHES IN UGANDA.—Until their marriage, the girls in the Unyoro villages go about perfectly nude, even when they go out of the house. The married women are also naked in the house, but never in the presence of servants or of strangers.

When two families are on friendly terms, and wish to make a match between their children, the two fathers, in the first place, visit each other twice or thrice to drink *mwéngé*, and on such occasions many guests are invited. Then the bride's father goes to the father of the bridegroom, and offers him his daughter "for friendship's sake." After this, the price of the bride is discussed and fixed, and a great feast follows, to which both parties contribute. A few days after the stipulated sum has been paid, the bride is fetched in the midst of a large procession; amidst singing and dancing, and copious libations of *mwéngé*, the way is taken to the bridegroom's house, where she is handed over to the bridegroom, and the whole company spends the night in singing, dancing, and drinking. The father of the bride receives for himself and his people the two hindquarters of the ox slaughtered on this occasion by the bridegroom's father. On the third day after the completion of the marriage, the whole village assembles to pad the hut of the newly wedded couple with hay, when fresh libations follow. On the sixth day after the wedding the young wife visits her parents, and during this visit, of three or four days' duration, the husband keeps aloof. Fresh symposia given by the father of the bride bring the ceremonies to a conclusion. The young wife then returns to her house, and if her husband is in good circumstances, passes her time in smoking, coffee-chewing, idling, and paying visits.²

WITH STANLEY IN DARKEST AFRICA.—In 1887 Stanley organized an expedition for the relief of Emin Pasha (Eduard Schnitzer), who after the Mahdist rising in the Sudan was cooped up with his Egyptian followers in the Equatorial Province of Egypt at Wadelai, north of Lake Albert Nyanza. Stanley this time entered Africa on the west by way of the Congo; and after a series of extraordinary marches through a forest region, during which starvation, fever, and the hostility of native tribes were daily instances, so that Stanley lost nearly half of his men, he met Emin Pasha in the neighbourhood of the Albert Nyanza on April 29, 1888.

During this journey Stanley had unpleasant experiences of the Manyuema, a tribe of the Upper Congo formerly noted for cannibalism and slave raiding.

It is but right to acknowledge that we were received on the first day with ostentatious kindness, but on the third day something of a strangeness sprang up between us. Their cordiality probably rose from a belief that our loads contained some desirable articles, but unfortunately the first-class beads that would have sufficed for the purchase of all their stock of corn were lost by the capsizing of a canoe near Panga Falls, and the gold-braided Arab burnouses were stolen below Ugarrowwa by deserters. Disappointed at not receiving the expected quantity of fine cloth or fine beads, they proceeded systematically to tempt our men to sell everything they possessed, shirts, caps, waist cloths, knives, belts, to which, being their personal property, we could make no objection. But the lucky owners of such

¹H. M. Stanley, "How I Found Livingstone" (1889).

²Emin Pasha, "In Central Africa" (1889).

articles having been seen by others less fortunate, hugely enjoying varieties of succulent food, were the means of inspiring the latter to envy and finally to theft. The unthrifty and reckless men sold their ammunition, accoutrements, bill hooks, ramrods, and finally their Remington rifles. Thus, after escaping the terrible dangers of starvation and such injuries as the many savage tribes could inflict on us, we were in near peril of becoming slaves to the Arab slaves.

Despite entreaties for corn, we could obtain no more than two ears per man per day. I promised to pay triple price for everything received, on the arrival of the rear column, but with these people a present possession is better than a prospective one. They professed to doubt that we had cloth, and to believe that we had travelled all this distance to fight them. We represented on the other hand that all we needed were six ears of corn per day during nine days' rest. Three rifles disappeared. The Headmen denied all knowledge of them. We were compelled to reflect that, if it were true, they suspected we entertained sinister intentions toward them, that surely the safest and craftiest policy would be to purchase our arms secretly, and disarm us altogether, when they could enforce what terms they pleased on us.

On the 21st six more rifles were sold. At this rate the Expedition would be wrecked in a short time, for a body of men without arms in the heart of the great forest, with a host of men to the eastward and a large body to the westward depending upon them, were lost beyond hope of salvation. Both advance and retreat were equally cut off, and no resource would be left but absolute submission to the chief who chose to assert himself to be our master or Death. Therefore I proposed for my part to struggle strongly against such a fate, and either to provoke it instantly, or ward it off by prompt action.

A muster was made, the five men without arms were sentenced to twenty-five lashes each and to be tied up. After a considerable fume and fuss had been exhibited, a man stepped up, as one was about to undergo punishment, and begged permission to speak.

"This man is innocent, sir. I have his rifle in my hut; I seized it last night from Juma (one of the cooks), son of Forkali, as he brought it to a Manyema to sell. It may be Juma stole it from this man. I know that all these men have pleaded that their rifles have been stolen by others, while they slept. It may be true as in this case." Meantime Juma had flown, but was found later on hiding in the corn fields. He confessed that he had stolen two, and had taken them to the informer to be disposed of for corn, or a goat, but it was solely at the instigation of the informer. It may have been true, for scarcely one of them but was quite capable of such a course, but the story was lame and unreasonable in this case and was rejected. Another now came up and recognized Juma as the thief who had abstracted his rifle—and having proved his statement and confession having been made—the prisoner was sentenced to immediate execution, which was accordingly carried out by hanging.¹

AMONG THE ABYSSINIANS.—The English traveller, A. Henry Savage Landor, gives an interesting account of his journey across Africa from Jubuti on the Gulf of Aden to Cape Verde. This journey of over 8,500 miles occupied a year. Landor was unaccompanied by any other white person. In the account of his travels² he has much of interest to tell of the manners and customs of the Abyssinians.

There are fashionable colours among African tribes as there are in Europe, and fashions change continually. Blue beads and brass bracelets were the fashion at the time of my visit to Tchana. Only occasionally one saw a dash of red in the men's shawls. The characteristic basket-work umbrellas were carried both by men and women.

To and fro upon the road leading to the market went women carrying large red earthen jars and calabashes with butter. Some of the smarter ladies were dressed in gowns

not unlike the garments of the ancient Greeks, with a red border at the bottom and leaving one arm exposed.

The men were finer specimens of humanity than the women. They possessed square, bony faces, and the anatomical details of limbs and body were somewhat better proportioned and chiselled. They lead a natural and healthy out-of-door life.

All the Galla of this country were Mussulmans. Of late years the religion of Islam has made, and is making, considerable headway in Abyssinia among the tribes akin to the Galla. Perhaps some day this important Mussulman element in the population of Abyssinia may be a great factor in upsetting the power of the ruling Christians.

As I was writing my notes in the afternoon a man with haggard face and staring eyes and his body reduced to a skeleton by hunger, came into my camp—evidently a case of insanity. Several wounds, which were beginning to heal, had been inflicted upon his body, and when he extended his arms imploring for food a heavy iron chain hung from his wrists where it had been soldered. He was a murderer. The state does not keep its prisoners. When not killed outright they are let loose about the country, driven away like pariah dogs by everybody and obliged to lead a miserable existence. This particular man was a raving lunatic with criminal characteristics noticeable in the formation of his skull and hands. The fingers were short and square-tipped, the thumb repulsively malformed. The forehead was low and narrow, the eyes close to the nose and the cheekbones abnormally developed.

He entreated me to take him along with me on the journey, but I thought a companion of this kind would be rather undesirable, so I gave him food supplies to last several days and persuaded him to leave my camp at his earliest convenience.

MOMBASA.—No idle occupation can be more fascinating than to wander about the mazes of the ancient town. The variety of race and occupation is something astounding. Probably the one human note that, everywhere persisting, draws the whole together is furnished by the water-carriers.

Mombasa has no water system whatever. The entire supply is drawn from numberless picturesque wells scattered everywhere in the crowded centre, and distributed mainly in Standard Oil cans suspended at either end of a short pole. By dint of constant daily exercise, hauling water up from a depth and carrying it various distances, these men have developed the most beautiful powerful figures. They proceed at a half trot, the slender poles, with forty pounds at either end, seeming fairly to cut into their naked shoulders, muttering a word of warning to the loiterers at every other breath—*seméelay! seméelay!* No matter in what part of Mombasa you may happen to be, or at what hour of day or night, you will meet these industrious little men trotting along under their burdens.

Everywhere also are the women, carrying themselves proudly erect, with a free swing of the hips. They wear invariably a single sheet of cotton cloth printed in blue or black with the most astonishing borders and spotty designs. This is drawn tight just above the breasts, leaving the shoulders and arms bare. Their hair is divided into perhaps a dozen parts running lengthwise of the head from the forehead to the nape of the neck, after the manner of the stripes on a watermelon. Each part then ends in a tiny twisted pig-tail not over an inch long. The lobes of their ears have been stretched until they hold thick round disks about three inches in diameter, ornamented by concentric circles of different colours, with a red bull's eye for a centre. The outer edges of the ears are then further decorated with gold clasps set closely together. Many bracelets, necklaces, and armlets complete the get-up. They are big women, with soft velvety skins, and a proud and haughty carriage; the counterparts of the men in the white robes and caps.¹

A LION HUNT.—"In an opening on the edge a hundred yards away appeared one of the lionesses. She was trotting

¹Henry M. Stanley, "In Darkest Africa" (1890).

²"Across Widest Africa" (1907).

¹Stewart Edward White, "African Camp Fires" (1913).

slowly, and on her I had time to draw a hasty aim. At the shot she bounded high in the air, fell, rolled over, and was up and into the thicket before I had much more than time to pump up another shell from the magazine." Thus recounts the well-known African traveller, Stewart Edward White.

By this time the others had got hold of their weapons. We fronted the blank face of the thicket.

The wounded animal would stand a little waiting. We made a wide circle to the other side of the stream. There we quickly picked up the trail of the two uninjured beasts. They had headed directly over the hill, where we speedily lost all trace of them on the flint-like surface of the ground. We saw a big pack of baboons in the only likely direction for a lion to go. Being thus thrown back on a choice of a hundred other unlikely directions, we gave up that slim chance and returned to the thicket.

This proved to be a very dense piece of cover. Above the height of the waist the interlocking branches would absolutely prevent any progress, but by stooping low we could see dimly among the simpler main stems to a distance of perhaps fifteen or twenty feet. This combination at once afforded the wounded lioness plenty of cover in which to hide, plenty of room in which to charge home, and placed us under the disadvantage of a crouched or crawling attitude with limited vision. We talked the matter over very thoroughly. There was only one way to get that lioness out; and that was to go after her. The job of going after her needed some planning. The lion is cunning and exceeding fierce. A flank attack, once we were in the thicket, was as much to be expected as a frontal charge.

We advanced to the thicket's edge with many precautions. To our relief we found she had left us a definite trail. B. and I kneeling took up positions on either side, our rifles ready. F. and Simba crawled by inches eight or ten feet inside the thicket. Then, having executed this manoeuvre safely, B. moved up to protect our rear while I, with Memba Sasa, slid down to join F.

From this point we moved forward alternately. I would crouch, all alert, my rifle ready, while F. slipped by me and a few feet ahead. Then he would get organized for battle while I passed him. Memba Sasa and Simba, game as badgers, their fierce eyes gleaming with excitement, their faces shining, crept along at the rear. B. knelt outside the thicket, straining his eyes for the slightest movement either side of the line of our advance. Often these wily animals will sneak back in a half circle to attack their pursuers from behind. Two or three of the bolder porters crouched alongside B., peering eagerly. The rest had quite properly retired to the safe distance where the horses stood.

We progressed very, very slowly. Every splash of light or mottled shadow, every clump of bush stems, every fallen log had to be examined, and then examined again. And how we did strain our eyes in a vain attempt to penetrate the half lights, the duskinesses of the closed-in thicket not over fifteen feet away! And then the movement forward of two feet would bring into our field of vision an entirely new set of tiny vistas and possible lurking places.

Speaking for myself, I was keyed up to a tremendous tension. I stared until my eyes ached; every muscle and nerve was taut. Everything depended on seeing the beast promptly, and firing quickly. With the manifest advantage of being able to see us, she would spring to battle fully prepared. A yellow flash and a quick shot seemed about to size up that situation. Every few moments, I remember, I surreptitiously held out my hand to see if the constantly growing excitement and the long-continued strain had affected its steadiness.

The combination of heat and nervous strain was very exhausting. The sweat poured from me; and as F. passed me I saw the great drops standing out on his face. My tongue got dry, my breath came laboriously. Finally I began to wonder whether physically I should be able to hold out. We had been crawling, it seemed, for hours. I dared not look back, but we must have come a good quarter mile. Finally F. stopped.

"I'm all in for water," he gasped in a whisper.

Somehow that confession made me feel a lot better. I had thought that I was the only one. Cautiously we settled back on our heels. Memba Sasa and Simba wiped the sweat from their faces. It seemed that they too had found the work severe. That cheered me up still more.

Simba grinned at us, and, worming his way backward with the sinuosity of a snake, he disappeared in the direction from which we had come. F. curses after him in a whisper both for departing and for taking the risk. But in a moment he had returned carrying two canteens of blessed water. We took a drink most gratefully.

I glanced at my watch. It was just under two hours since I had fired my shot. I looked back. My supposed quarter mile had shrunk to not over fifty feet!

After resting a few moments longer, we again took up our systematic advance.

We made perhaps another fifty feet. We were ascending a very gentle slope. F. was for the moment ahead. Right before us the lion growled; a deep rumbling like the end of a great thunder roll, fathoms and fathoms deep, with the inner subterranean vibrations of a heavy train of cars passing a man inside a sealed building. At the same moment over F.'s shoulder I saw a huge yellow head rise up, the round eyes flashing anger, the small, black-tipped ears laid back, the great fangs snarling. The beast was not over twelve feet distant. F. immediately fired. His shot, hitting an intervening twig, went wild. With the utmost coolness he immediately pulled the other trigger of his double barrel. The cartridge snapped.

"If you will kindly stoop down——" said I, in what I now remember to be rather an exaggeratedly polite tone. As F.'s head disappeared, I placed the little gold bead of my .405 Winchester where I thought it would do the most good, and pulled trigger. She rolled over dead.¹

HUNTING THE RHINOCEROS.—Owing to his size, his powerful armament, and his incredible quickness the rhinoceros is a dangerous animal at all times, to be treated with respect and due caution. This is proved by the number of white men, out of a sparse population, that are annually tossed and killed by the brutes, and by the promptness with which the natives take to trees—thorn trees at that!—when the cry of *faru!* is raised. As he comes rushing in your direction, head down and long weapon pointed, tail rigidly erect, ears up, the earth trembling with his tread and the air with his snorts, you suddenly feel very small and ineffective.

If you keep cool, however, it is probable that the encounter will result only in a lot of mental perturbation for the rhino and a bit of excitement for yourself. If there is any cover you should duck down behind it and move rapidly but quietly to one side or another of the line of advance. If there is no cover, you should crouch low and hold still. The chances are he will pass to one side or the other of you, and go snorting away into the distance. Keep your eye on him very closely. If he swerves definitely in your direction, *and drops his head a little lower*, it would be just as well to open fire. Provided the beast was still far enough away to give me "sea-room," I used to put a small bullet in the flesh of the outer part of the shoulder. The wound thus inflicted was not at all serious, but the shock of the bullet usually turned the beast. This was generally in the direction of the wounded shoulder, which would indicate that the brute turned toward the apparent source of the attack, probably for the purpose of getting even. At any rate, the shot turned the rush to one side, and the rhinoceros, as usual, went right on through. If, however, he seemed to mean business, or was too close for comfort, the point to aim for was the neck just above the lowered horn.

In my own experience I came to establish a "dead line" about twenty yards from myself. That seemed to be as near as I cared to let the brutes come. Up to that point I let them alone on the chance that they might swerve or change their minds, as they often did. But inside of twenty

¹Stewart Edward White, "The Land of Footprints" (1913).

yards, whether the rhinoceros meant to charge me, or was merely running blindly by, did not particularly matter. Even in the latter case he might happen to catch sight of me and change his mind. [Thus, looking over my notebook records, I find that I was "charged" forty odd times—that is to say, the rhinoceros rushed in my general direction. Of this lot I can be sure of but three, and possibly four, that certainly meant mischief. Six more came so directly at us, and continued so to come, that in spite of ourselves we were compelled to kill them. The rest were successfully dodged.¹

ON THE TRAIL OF THE ELEPHANT.—White and his party next prepared to follow the trail of an elephant, and to stay by the spoor until they came up with him. They took one light tent, blankets, and some cold food.

Before we started the Wanderobo again made medicine; for the pursuit of an elephant is a very solemn thing. Each snipped a link from his ornamental steel chain; one produced an old dried piece of elephant meat; another built a tiny fire. The elephant meat was thrown on the coals, and the links of chain laid atop it. N'jahgi performed the ritual while the rest of us squatted in a circle below him. As yesterday, he raised his hands, palm up, to the skies; he faced in turn all parts of the compass; he bent humbly, his hands crossed on his breast, calling on the forest, the Powers, and the gods of elephants in a loud monotone. The others, once more, their heads low, muttered choral responses, and at times beat the earth softly, in unison, with the palms of their hands. Then suddenly they rose and disappeared, leaving us by the little fire. After a short interval they returned bringing tufts of some herb. These N'jahgi dipped in the white ashes, and with them spattered each countenance, muttering some sort of a charm. The herbs were distributed. Each sat on his share, while N'jahgi intoned another invocation. Obeying a gesture we arose and started for the forest. But this was not all. At the beginning of the elephant spoor the little men all knelt down in a row, beat the earth softly with their palms, shook their herb bundles in the air, bent forward and blew three times on the trail. Then they planted the herbs beneath trees on either side of the trail. We started in good earnest.¹

A SWARM OF MIDGES.—About three in the afternoon I saw the black smoke of a steamer over the point, drifting down the wind. Joyfully we hastened to a height—to find that the "smoke" was a swarm of midges, a phenomenon for which Victoria Nyanza is famous. There must have been millions of them, for they were in appearance exactly like the voluminous smoke of a steamer that has just been fresh stoked. Once in the air they cannot come down until the wind dies, so their fate is most uncertain.²

OSTRICH FARMING.—One of the most singular enterprises of the South African colonists is that of ostrich farming. Ostrich feathers are now quite as much the product of regulated human labour, applied to the art of domestication, as wool, mohair, or silk. The plumes which play so distinguished a part in the pomp of ceremony and fashion are no longer to be reckoned among the barbaric spoils of the chase. They are the tame products of the farmyard, and are the ultimate results of such commonplace processes as breeding, rearing, herding, feeding, plucking, and sorting. Cape farmers buy and sell ostriches as they do sheep, and they fence in their flocks, stable them, grow crops for them, study their habits, and cut their feathers, as matters of business.

The birds begin to feather at eight months from hatching, but the yield is then poor and of little value. In another

eight months there is a fresh and improved crop, and the plumes become better with each season. The art of separating the feathers is one which requires practice. Plucking is not looked upon with favour, as it irritates and produces fever. Nipping, or cutting, is considered to be safer. The feathers are severed close to the point of insertion, and the stumps are allowed to remain until they can be easily removed.

Dr. Atherstone says:—"My own opinion is that the best plan is that adopted by a farmer in the Western Districts, who had seventy or eighty ostriches, and found the plan the best and most convenient. To show me the whole process he had the whole flock driven into the wagon-house, and we then insinuated ourselves by wriggling among the densely packed birds. He had previously shown me what to do in case of any bird proving vicious; they are perfectly in your power if you seize them by the neck; you may choke them as far as you please until you find them powerless, and you can then run away.

"Having got with my friend into the middle of the crowd, so packed that they were unable to move, he quietly selected two or three of the best feathers, and with a curved sharp knife in his right hand, the blade protected by lying flat against his finger, he pressed it down as near to the root as he could, and cut it off obliquely upward. The bird was quite unconscious of the operation, standing perfectly still as he handed several to me. He then picked out a blood feather, very beautiful, which, on being cut, bled a little; but the sharp knife separated it without being felt. In a month or six weeks he took out all the stumps, if they had not fallen out. By this means the health of the bird is not impaired; no irritative fever is produced and you can select only the feathers that are in prime condition, leaving the others to ripen in due course."

The average produce of a full-grown bird is about one-fourth of a pound weight; but the yield is entirely governed in quantity and quality by the health and vigour of the ostrich.¹

CAIRO.—Cairo, the capital of Egypt, is situated on the right bank of the Nile, 150 miles by rail from Alexandria. It is the "diamond clasp" which closes "the fan of the delta." Cairo is a walled city, commanded by an imposing citadel. It contains four hundred mosques. On the opposite bank of the Nile is the town Gizeh, near which stand three of the largest pyramids. The largest of all is the *pyramid of Cheops*, which covers an area of nearly thirteen acres. It is built of massive limestone blocks, and its inner burial chambers are approached by sloping passages. It is 480 feet high, and the statement of Herodotus is probably correct when he tells us that it required the labours of a city of 100,000 men during twenty years.

The queer status of Modern Egypt, and its bewildering mixture of three continents at once, is most clearly visible in the metropolis which Amr founded. East and west jostle one another alternately in its streets. Electric trams of French pattern pull up the hill to Saladin's citadel, where British soldiers are quartered; another tram runs over a Belgian bridge across the Nile and out to the foot of the pyramids, passing Bedouin on camels, and being passed by American-made motor-cars, along a road which was made for the Empress of the French. Go down to the bazaars, where sandal wood and morocco slippers scent the air, and be offered a patent telescopic walking stick made in Germany; or buy a rug of Bokhara, and learn that the vendor is agent for a famous London firm of furnishers whose buyers traverse all Asia for oriental carpets. The coffee-coloured Nubian cook provides Yarmouth bloaters from the cold storage for breakfast, and buys Australian meat from the same. The palace of Gezira, where Ismail took his pleasure, is now a giant hotel, one of seven such monsters, and the hotel which Shepheard founded in the open fields is now in the centre of Cairo. Native clerks croon

¹Stewart Edward White, "The Land of Footprints" (1913).

²Stewart Edward White, "The Rediscovered Country" (1915).

¹"Handbook to South Africa."

their accounts aloud to the chick-chick accompaniment of typewriters, and the telephone central exchange takes numbers indifferently in Arabic, French, English, Italian, Greek, or anything. There is no lack of variety in Cairo; there is so much that it becomes monotonous. It is civilized ahead of Parisian fashion, it has only just got a drainage system, and it is the seat of Government.

Take the city of the Arabian Nights, batter it a little, add some corners of Paris, a street or two from Marseilles, and a dash of the select parts of Ealing (forgetting to finish off any of the sidewalks), tack on an "art nouveau Arabe" garden city with sand instead of gardens, run up ten-storey flats in the European business quarter, populate it with every nation, clique, interest, sect, faction, and occupation under the sun, and you will realize that it can have only one effect on its resident, it keeps him to himself. Cairo is too complex to understand, and the Cairene is therefore parochial.¹

MOHAMMEDAN FORMS OF SALUTATION.—The Mohammedans are extremely formal in their social manners. Many of their most common usages are founded upon precepts of their religion and distinguish them in society from all other people. Among these is their custom of greeting each other with the salutation of "Peace be on you!" to which the proper and general reply is "On you be peace, and the mercy of God, and his blessings!" This salutation is never to be addressed by a Mohammedan to a person of another religion, nor *vice versa*.

When particular friends salute each other, they join their right hands, and then each kisses his own hand, or puts it to his lips and forehead, or raises it to his forehead only, or merely places it on his breast, without kissing it; if after a long absence, and on some other occasions, they embrace each other, each falling upon the other's neck, and kissing him on the right side of the face or neck, and then on the left.

Another mode of salutation is very commonly practised among the lower orders, when two friends or acquaintances meet after a journey: joining their right hands, each of them compliments the other on his safety, and expresses his wishes for his welfare by repeating alternately many times, the words "Selâmât" and "Teiyibeen" ("I congratulate you on your safety"; and "I hope you are well"). In commencing this ceremony, which is often continued for nearly a minute before they proceed to make any particular inquiries, they join their hands in the same manner as is usually practised by us; and at each alternation of the two expressions above mentioned, they change the position of the hands. In repeating the second word, each of the two persons turns his fingers over the thumb of the other; and in repeating the first word again, the former position is resumed.

In polite society various other formal salutations and compliments follow the selâm. To most of these there are particular replies, or two or more different forms of reply may be used in some cases; but to return any that custom has not prescribed would be considered as a proof of ignorance or vulgarity. When a person asks his friend, "How is your health?" the latter replies, "Praise be to God!" and it is only by the tone of voice in which he makes this answer that the inquirer can infer whether he be well or ill.²

SYNOPSIS OF AFRICA

(See Maps, pp. 49-56)

EXTENT.—Africa is the second largest continent on the globe; it is more than four times the size of Europe. Its area amounts to 11,608,000 square miles; its length is 4,970 miles and its breadth in the widest part is 4,700 miles. In consequence of its regular shape, Africa has a relatively short coast line (16,100 miles). Though Europe is a much smaller continent, its coast line is longer than that of Africa.

Africa is bounded on the north by the Mediterranean, on the west by the Atlantic, on the east by the Red Sea and the Indian Ocean, and on the south by the Southern Ocean.

POPULATION.—About 140,000,000.

¹W. Lawrence Balls, "Egypt of the Egyptians" (1915).

²E. W. Lane, "Manners and Customs of the Modern Egyptians" (1895).

CAPES.—On the north: Bon. On the west: Bojador, Blanco, Verde, Palmas, Lopez, and Frio. On the south: Good Hope, and Agulhas. On the east: Guardafui, Delgado, and Corrientes.

BAYS AND GULFS.—In the Mediterranean: Gulf of Sidra and Gulf of Gabes. On the Atlantic: Gulf of Guinea (containing the Bight of Benin and the Bight of Biafra), Walfisch Bay, and Table Bay. On the Southern Ocean: Mossel Bay and Algoa Bay. On the east the chief openings are the Red Sea (with the Gulfs of Suez and Aden) and Delagoa Bay.

STRAITS, ETC.—Strait of Gibraltar, leading from the Atlantic to the Mediterranean; Bab el Mandeb, between the Red Sea and the Gulf of Aden; and the Mozambique Channel, between Mozambique and Madagascar.

ISLANDS. On the west: *Madeira* (Portuguese), the *Canary Islands* (Spanish), *Cape Verde Islands* (Portuguese), *Fernando Po* (Spanish), *St. Helena* and *Ascension* (British). St. Helena was the island where Napoleon lived from the Battle of Waterloo (1815) till his death in 1821. On the east: *Sokotra* (British), *Pemba* (British), *Zanzibar* (British), *Seychelles* (British), *Comoro Islands* (French), *Madagascar* (French), *Mauritius* (British), *Réunion* (French).

BUILD.—Africa has no great central range of mountains; there are no vast watersheds. Africa is essentially a continent of table-lands. The greater part of the continent consists of plateaus varying from 2,000 feet to 9,000 feet in height, with a rim of mountain ranges parallel with the coast. North Africa is a plateau whose mean altitude is about 1,300 feet. It may be divided into three parts: the *Sahara*; the *Sudan*; and the *Berber Highlands*, which include the Atlas range. The Sahara ("Sea of Sand") stretches right across the continent from the Atlantic to the Red Sea. It is sometimes, however, said to cease at the Valley of the Nile. The South African plateaus are considerably higher than those of North Africa. The tablelands of South Africa are separated from each other by mountain ranges, and are buttressed by lofty sierras running round the edges, not far from the coast. The largest and highest plateau in South Africa is the *East African Table-land*, which stretches from the lower Zambezi to the northern boundary of Abyssinia. From this plateau rise, in the neighbourhood of the equator, the two highest summits in Africa—*Kilimanjaro* (19,500 ft.) and *Kenia* (18,000 ft.).

The *Central Plateau* almost coincides with the Congo basin. The *Southern Plateau* extends from the watershed of the Congo basin to the South Atlantic. It contains the basins of the Zambezi and Orange rivers. The southern part of this plateau descends to the sea by three terraces; the highest containing the *Kalahari Desert*; the middle one, the *Great Karroo*; and the lowest, the coast-land of the Cape of Good Hope.

MOUNTAINS.—The chief ranges are the *Atlas* (highest point, *Jebel Ajashi*, 14,800 ft.) on the north; the *Kong Mountains* (highest point, *Pic des Komono*, 4,757 ft.) and the *Kamerun Mountains* (highest point, *Mongo ma Loba*, 13,366 ft.) on the west; the *Drakenberg Mountains* (highest point, *Mont-aux-Sources*, 10,988 ft.) on the southeast; and the *Abyssinian Mountains* (highest point, *Ras Dashan*, 15,160 ft.). In the southwest of the Cape Province is the famous *Table Mountain* (3,582 ft.).

PLAINS AND DESERTS.—Between the Gulf of Sidra and Cairo lies the lowest plain in the whole of Africa; much of this plain is below the level of the Mediterranean. Inland from the Gulf of Gabes is another depressed plain. The chief plains, however, are elevated plains or plateaus; the two most extensive being the deserts of Sahara in North Africa and of Kalahari in South Africa. The Kalahari Desert stretches from the Orange River to about 20°S. lat.; it is a dry and sandy region without running water.

CONTINENTAL BASINS.—Africa contains two large areas of continental drainage, one in the north and one in the south, from which no water escapes directly to the sea. These correspond almost exactly to the deserts of Sahara and Kalahari. The Sahara has its *Lake Chad*, with numerous feeders, of which the Shari is the best known; near the Kalahari is *Lake Ngami*, fed by the waters of the Okavango and the Kwito. Lake Ngami is now a marsh, and the evidence of travellers shows that the country around Ngami is drying up.

RIVERS.—The rivers are unevenly distributed. The divides between their head-waters are often ill-defined; in their middle courses the rivers flow sluggishly over the wide plains; while in their lower courses they enter wild gorges and descend by falls and rapids into the sea. Many of the rivers have dangerous sand-banks near their mouths. The nature of the river system largely explains why Africa has so long remained an inaccessible continent.

The principal rivers are the Nile, the Congo, the Niger, the Zambezi, the Orange, and the Limpopo.

THE NILE.—The Nile (3,670 miles in length) drains the largest area of all the African rivers. It is formed by two streams: the *White Nile* (Arabic *Bahr el Abiad*) which rises on the high eastern table-land where it drains Victoria Nyanza and Albert Nyanza, and the *Blue Nile* (Arabic *Bahr el Azrek*) which rises in Abyssinia and unites with the White Nile near Khartoum. Flowing northward it is joined by the *Atbara* at lat. 18°. Owing to the great evaporation in its course across the burning desert, the Nile grows smaller and smaller as it nears the sea. Between the junction of the Atbara and the mouth there are five cataracts. The Nile is navigable as far as Assouan. The delta of the Nile is 120 miles wide between the west mouth at Rosetta and the east mouth at Damietta. The river rises from the end of June to October; its mean rise at Cairo is 27 feet.

THE CONGO.—The Congo (between 2,500 to 3,000 miles in length) rises on the high table-land between Lakes Tanganyika and Nyasa, and in point of volume is the first river of Africa. The Congo was first fully discovered and surveyed by Stanley in 1877. It is the only large African river which has a true estuary; its estuary is six miles wide.

THE NIGER.—The Niger (2,600 miles in length) rises near the Sierra Leone frontier and flows inland almost to the edge of the desert; then sweeping round it flows southeastward and is joined by the Binue in Nigeria. About one hundred miles from its mouth, at the Bight of Benin, its delta begins. This delta incloses about 14,000 square miles of low alluvial plain covered with forest and jungle and is crossed by a network of channels.

THE ZAMBEZI.—The Zambezi (2,200 miles in length) flows over the south-

ern table-land, and is separated from the Congo basin by the swampy divide. Its middle course is broken by the *Victoria Falls* (about 350 feet high), the greatest waterfall in the world. Below and almost at right angle to the falls, the gorge is spanned by a bridge (completed in April, 1905) which forms a link in the Cape to Cairo railway scheme. The Zambezi empties itself through a delta into the Mozambique Channel.

THE ORANGE.—The *Orange* (1,000 miles in length) rises in Basutoland, and after being joined by the *Vaal* flows west along the northern boundary of Cape Province to the Atlantic.

THE LIMPOPO.—The *Limpopo* or *Crocodile* (about 1,000 miles in length) rises in the Transvaal and flows into the Indian Ocean through Portuguese East Africa. It forms the northern boundary of the Transvaal.

LAKES.—The chief lakes are: *Victoria Nyanza*, discovered by Captain Speke in 1858, and circumnavigated in 80 days by Stanley in 1875; *Albert Nyanza*, discovered by Sir Samuel Baker in 1864; *Tanganyika*, discovered by Captain Burton in 1858; *Nyasa*, discovered by Livingstone in 1859; *Bangweolo* or *Bemba*, first reached by Livingstone in 1868, partially surveyed in 1883 by the French traveller, Victor Giraud, and first circumnavigated by Poulett Weatherley in 1896; and the two continental lakes (those without an outlet) *Chad* and *Ngami*.

CLIMATE.—The greater part of Africa lies within the Torrid Zone, and extreme variations of temperature are not experienced. In the extreme north and south the climate is warm, the northern countries being generally hotter and drier than those in the south. As the south of the continent is narrower than the north, the influence of the surrounding ocean is more felt. The greatest heat is found in the eastern Sahara. In Nubia eggs may be baked in the hot sands. The rainfall is greatest when the sun is vertical; hence the greatest rainfall is at the equator.

In tropical Africa the acclimatization of white men is largely dependent on the combating of tropical diseases. The discovery in 1899 of the species of mosquito which propagates malarial fever has led to the filling up of many swamps, with a consequent reduction in the death rate in many districts that were notoriously deadly to Europeans. The natives likewise succumb to these deadly diseases, one of the most fatal being that known as sleeping sickness. The ravages of this disease in certain parts of tropical West Africa reached alarming proportion between 1893 and 1907. See *Climate Map of Africa*, pp. 50, 51.

ECONOMIC PLANTS OF AFRICA.—(1) *Useful Palms*: *Date Palm* (Nile Valley and Saharan oases), *doum palm* (Upper Egypt, etc.), *oil palm*, yielding palm-oil and palm-kernels (Guinea Coast and Congo districts), *coco palm* (East Coast, Mauritius, Senegal, etc.), *wine palm* (Guinea Coast), *raphia palm* (Madagascar), *piassava palm* (Congo districts, etc.), *deleb palm* (East Africa, etc.).

(2) *Cultivated Cereals*: *Sorghum*, *durra*, or *kaffir corn* (Sudan southward), other *millet*s, such as *maize* (Egypt to South Africa), *wheat* (Egypt, Algeria, Abyssinia, British South Africa, etc.), *barley* (Atlas regions, etc.), *oats* (British South Africa, etc.), *rice* (Madagascar, Egypt, parts of central Africa, Senegal, etc.).

(3) *Other food plants*: *Sugar cane* (Mauritius, Réunion, Egypt, Natal, etc.), *coffee* (South Abyssinia, Liberia, British Central Africa, Congo districts, etc.), *cocoa* (Kamerun, Congo districts, Madagascar, etc.), *tea* (Natal, etc.), *ground-nut* (especially Guinea Coast), *vine*, for wine (Algeria and Union of South Africa), *beans* (Egypt, Morocco, etc.), *olives*, for oil (Tunis and neighbouring lands), *cloves* (Zanzibar), *chillies* (Zanzibar), *kola-nut* (West Tropical Africa), *yam* (West Tropical Africa), *tapioca*, *cassava*, *manioc* (Guinea Coast, islands of Indian Ocean, etc.), *ginger* (West Africa), *bananas* and *plantains* (Guinea Coast and other parts of tropical Africa, also Canary Islands), *chick-pea* (Morocco, etc.), *pigeon-pea* (Congo districts, etc.), *vanilla* (Mauritius, Réunion, Zanzibar, Madagascar, and parts of mainland), *shea butter* (West Africa), *sweet potato* (various parts of tropical Africa), *kaffir bread* (South Africa), *fruits* and *vegetables* (Algeria, Egypt, Union of South Africa).

(4) *Useful trees* (other than palms): *Cedar* (Atlas regions), *baobab* (the savanna land of Equatorial Africa), *bamboo*, *banyan*, and other species of *ficus* (Central and West Africa), *carob-tree* (North Coast), *African mahogany* (Guinea Coast), *ebony* (West Africa, Madagascar, Mauritius, etc.), *camwood* (Guinea Coast), *African oak* or *teak* (West Africa), *cork-oak* (Algeria and Tunis), *stinkwood* (chiefly Natal), *sneezewood* (South Africa), *yellow-wood* (South Africa), *Australian wattles* (introduced in the Union of South Africa, etc.).

(5) *Other vegetable products*: *Cotton* (Egypt, West Africa, Madagascar, etc.), *tobacco* (Algeria, Central Africa, Transvaal, Madagascar, etc.), *indigo* (Equatorial Africa), *rubber* (forests of Guinea Coast and Congo districts), *gum-arabic* (Senegal, Sudan, etc.), *gum-copal* (especially East Africa), *orchil* (Equatorial Africa), *alfa* or *esparto grass* (North Coast lands), *castor-beans* (Senegal, etc.), *papyrus* (Nile valley, etc.), *flax* (Egypt and other northern lands).

ANIMAL PRODUCTS.—The African elephant is hunted for the sake of the ivory tusks. Elephants roamed over the whole of Africa until comparatively recent times. Civilization has gradually driven them farther and farther into the forests of the interior; they are still abundant in Central Africa and Uganda. Two kinds of African *ivory* are recognized in commerce: the milk-white *soft ivory* of animals that feed in the open dry woodlands and savannas, as of the Upper Nile and central lakes, and the *hard ivory* from those living in damp forests and marshy grasslands, as of the Niger and Congo. Soft ivory is less glassy and does not crack so easily. Ivory is also obtained from the hippopotamus. Ostrich feathers, hides, skins, and horns are other animal products of Africa.

MINERALS.—*Gold* (Transvaal, Gold Coast, Madagascar, etc.), *silver* (Transvaal, etc.), *copper* (Cape Province, Southwest Africa, Madagascar, Algeria, Congo region, etc.), *iron* (South Africa, Abyssinia, Atlas region, Madagascar), *zinc* (Algeria, Tunis, Transvaal, etc.), *lead* (Tunis, Transvaal, etc.), *tin* (Swaziland, etc.), *coal* (South Africa, etc.), *diamonds* (Cape Province, especially Kimberley, Orange Free State, Transvaal), *salt* (Sahara, etc.), *phosphates* (Algeria, Tunis, etc.), *petroleum* (Algeria, Angola, Cape Province, Natal, etc.). Also antimony, quicksilver, plumbago, nickel, manganese, asbestos, mica, kaolin, nitrates, sulphur, marble, etc.

ANIMALS.—Africa is the home of the largest living quadrupeds. The most characteristic animals are the elephant, one-humped camel, hippopotamus, rhinoceros, giraffe, okapi, gnu, antelope, zebra, quagga or wild ass, and baboon. Among the carnivorous animals are the lion, leopard, jackal, hyena, caracal, and civet-cat. The tiger is not found at all. The bear is found only in the Atlas regions.

Besides the swift ostrich that scours the plains, Africa possesses the large secretary bird, the ibis, flamingo, and numerous birds of brilliant plumage, such as parrots, kingfishers, and sunbirds.

Of insects, the *locust* is the proverbial scourge of Africa; while the ravages of *white ants* are almost incredible. The *tsetse*—a fly whose bite is fatal to cattle, horses, and dogs—is common in many parts of South and East Africa, and is one of the greatest obstacles to civilization. A closely related species (*Glossina morsitans*) is the carrier of the particular parasite which produces the sleeping sickness.

Among reptiles, the *crocodile* is much larger than the American cayman; but serpents are less common in Africa than in Asia or America.

PARTITION OF AFRICA.—During the last quarter of the nineteenth century there was a "scramble for Africa" by enterprising European powers, particularly Great Britain, France, Germany, and Italy. Protectorates and spheres of influence were established in all parts of Africa hitherto unattached by any European country. Large areas of the spheres assigned to different powers have still to be brought under European control; but this work is advancing rapidly.

(Places in *Italics* have been acquired since 1880.)

EUROPEAN DEPENDENCIES	CAPITAL	AREA (sq. miles)	POPULATION
<i>British</i>			
<i>Egypt</i>	Cairo	400,000	12,000,000
<i>Anglo-Egyptian Sudan</i>	Khartum	1,000,000	2,000,000
<i>Somaliland</i>	Berbera	68,000	300,000
<i>East Africa Protectorate</i>	Nairobi	182,000	4,000,000
<i>Uganda</i>	Entebbe	223,000	2,500,000
<i>Zanzibar</i>	Zanzibar	1,020	200,000
<i>Nyasaland</i>	Zomba	300,000	1,000,000
<i>British West Africa</i>	Bathurst	451,700	19,646,000
<i>Rhodesia</i>	Salisbury	450,000	1,750,000
<i>Bechuanaland Protectorate</i> ¹		275,000	126,000
<i>Swaziland</i>	Mbabane	6,678	100,000
<i>Basutoland</i>	Maseru	10,300	350,000
<i>Union of South Africa:</i>			
<i>Cape Province</i>	Cape Town	277,000	5,100,000
<i>Natal</i>	Pietermaritzburg	35,400	
<i>Transvaal</i>	Pretoria	110,400	
<i>Orange Free State</i>	Bloemfontein	50,400	
<i>Mauritius</i>	Port Louis	720	370,000
<i>Seychelles</i>	Victoria	150	23,000
<i>Ascension</i>	Georgetown	40	150
<i>St. Helena</i>	Jamestown	47	3,500
		3,842,355	49,468,650
<i>French</i>			
<i>Algeria</i>	Algiers	221,947	5,563,828
<i>French Morocco</i>	Fez		
<i>Tunis</i>	Tunis		
<i>French West Africa</i>	Dakar	3,812,300	39,948,300
<i>French Equatorial Africa</i>	Brazzaville		
<i>French East Africa:</i>			
<i>Madagascar</i>	Tananarivo	4,034,247	45,512,128
<i>Somali Coast</i>	Jibuti		
<i>German</i> ²			
<i>Togoland</i>	Lome	33,659	1,000,000
<i>Kamerun</i>	Buëa	295,000	3,500,000
<i>German Southwest Africa</i>	Windhoek	322,348	120,000
<i>German East Africa</i>	Dar-es-Salam	384,079	7,546,000
		1,035,086	12,265,000
<i>Portuguese</i>			
<i>Portuguese Guinea</i>	Bolama	14,000	400,000
<i>Portuguese West Africa (Angola)</i>	Loanda	484,000	4,119,000
<i>Portuguese East Africa (Mozambique)</i>	Mozambique & Lourenço Marques ³	293,860	3,120,000
<i>Cape Verde Islands</i>	Praia	1,475	150,000
<i>São Thomé and Príncipe Islands</i>	São Thomé	442	45,000
		793,777	7,834,000
<i>Italian</i>			
<i>Eritrea</i>	Asmara	45,800	450,000
<i>Italian Somaliland</i>	Mogadisho	139,430	450,000
<i>Tripoli and Cyrenaica</i>	Tripoli	406,000	723,000
		591,230	1,623,000
<i>Spanish</i>			
<i>Spanish Guinea</i>	Santa Isabel	12,000	200,000
<i>Rio de Oro and Adrar</i>	Villa Cisneros	73,000	12,000
<i>Fernando Po</i>	Basile	814	21,000
<i>Spanish Morocco</i>	Tetuan	15,000	
		100,814	233,000
<i>Belgian</i>			
<i>Belgian Congo</i>	Boma	913,127	15,000,000
Grand Totals		11,310,636	131,935,778

¹Headquarters of the administration are in *Mafeking* in the Cape Province. *Francistown* is the chief town in the north, and *Gaberones* in the south of the Protectorate.

²The German colonies were lost by Germany in the Great War.

³Alternately. For dates of acquisition and other particulars, see under the respective European countries.

The only independent states are ABYSSINIA and LIBERIA.

ABYSSINIA

(See Map, p. 55)

Abyssinia (the Ethiopia of ancient days) is an empire which occupies a portion of the highlands of northeast Africa. The country is volcanic and mountainous. It contains the sources of the Blue Nile and the Atbara. There are two seasons in the year, a dry winter and a rainy summer. The Abyssinians are Christians, and their kings claim descent from Menelek, the son of Solomon by the Queen of Sheba.

NATURAL PRODUCTIONS.—Abyssinia contains some mineral wealth; iron and coal are not uncommon, and gold is washed in various streams, while salt, saltpetre, and sulphur are also procurable. In the hotter districts, sugar cane, coffee, cotton, rubber, etc., flourish; in the middle zone, maize, wheat, barley, wild oranges and other fruit trees, tobacco, potatoes, etc., are cultivated; and above 9,000 feet are excellent pastures with some corn cultivation. Horses, mules, donkeys, oxen, goats, and sheep, and camels in the lowlands, form a large portion of the wealth of the people.

INDUSTRIES.—The principal pursuits are agriculture, cattle breeding, and hunting. The chief exports are coffee, civet, wax, hides, rubber, ivory, and gold.

CAPITAL.—*Adis Abeba*. Population, about 50,000.

LIBERIA

(See Map, p. 55)

Liberia is a Negro republic on the coast of West Africa, lying between the French colony of the Ivory Coast on the east and Sierra Leone on the west, and between the French possessions in the interior and the sea. Liberia was founded in 1820 by the American Colonization Society for the settlement of freed slaves. Its independence is recognized by the United States and the European powers.

NATURAL PRODUCTIONS.—The development of Liberia is hindered by the laws prohibiting any but Liberian subjects from holding land. Until 1909 foreigners were forbidden to trade in the interior or anywhere except at the official ports of entry. The chief products are palm oil, coffee, rubber, and ivory. Cotton is indigenous, but is not cultivated to any extent. There are extensive forests in the interior, and much mineral wealth exists.

PORTS.—There are fifteen ports of entry along the 350 miles of coast, viz.: Robertsport, Monrovia, Marshall, Grand Bassa, River Cess, Greensville, Nanna Kru, Harper, Half Cavalla, Jenne, Webo, Grand Cess, Garraway, Niffo, and Batoo.

CAPITAL.—*Monrovia*. Population (including Krutown) 6,000.

CHIEF IMPORTS.—Cottons, haberdashery, salt, rice, provisions, arms, ammunition, tobacco, hardware, glass and earthenware, rum, gin, timber, and beads.

CHIEF EXPORTS.—Coffee, cocoa, palm kernels, palm oil, ivory, piassava, rubber, and camwood.

GOVERNMENT.—The constitution is on the model of that of the United States. The President is elected for four years, the House of Representatives (14 members) for four years, and the Senate (9 members) for six years.

EGYPT

(See Map, p. 55)

Egypt is a British protectorate, by proclamation of December 18, 1914. From 1879 to 1883 the country was under the dual control of Great Britain and France; but in the latter year Great Britain intervened after Arabi Pasha's rebellion, and since then practically governed the country up to the time of the overthrow of the Turkish suzerainty.

The total area of Egypt is estimated at 232,440,000 statute acres, of which about 7,000,000 acres are formed of the alluvium brought down by the Nile from the Abyssinian hills, the remainder being chiefly limestone desert.

IRRIGATION.—Egypt is called "the gift of the Nile." Without the Nile there would be no inhabitable country in this part of the continent, but thanks to that famous river Egypt is one of the most prosperous parts of Africa. Most of the land is irrigated by means of canals, which convey water from the Nile. There are two chief methods of irrigation, known as *perennial irrigation* and *basin irrigation*. The *perennial* system consists of deep canals containing water all the year round and enabling two or more crops to be grown. The *basin* system is quite different. The land is divided into rectangular areas of varying size and surrounded by banks, between which the waters of the Nile are admitted during the flood season (August), and there retained for about forty days, when it is run off and seed is sown broadcast on the land.

For irrigation purposes *barrages* have been built at Esna and Siut, and others in the Nile delta have been restored and improved; while a storage dam has been constructed at Assouan and a barrage built at Zifta. The increase in the value of the land owing to these labours is enormous, and some 2,000,000 acres have been added to the cultivable area.

NATURAL PRODUCTIONS.—(1) *Agriculture.* The principal products are cotton, cereals, and sugar, about two-thirds of the population being engaged in agriculture. The fellahin, or small cultivators, receive advances from the Agricultural Bank, the loans being limited to fifty per cent of the selling value of land on which the advance is made. The cultivated area can never extend beyond the region which is capable of being watered by the Nile.

(2) *Live stock.* Cattle, buffaloes, horses, mules, donkeys, and dromedaries are raised.

(3) *Minerals.* Building stone, clays, gypsum, gold, lead and zinc ores, manganese ores, natron, nitrate, petroleum, phosphate of lime, salt, and turquoise are produced on a commercial scale; and alum, copper ores, emeralds, granite, iron ores, nickel, ochres, ornamental stones, and sulphur are known to exist in more or less important quantities.

MANUFACTURES.—There are some cotton mills in the delta for the manufacture of rough calico; and in Upper Egypt are sugar, rice, and flour mills,

and a certain amount of pottery is made. Cigarette factories centre at Cairo and Alexandria; imported tobacco is mainly employed.

CHIEF CITIES AND INDUSTRIES OF EGYPT

CITY	POP. IN THOUSANDS	INDUSTRIES
ALEXANDRIA	406	(Chief seaport.) Cotton.
CAIRO	740	Cotton, paper, sugar, silk, saltpetre, gunpowder, leather.
DAMANHUR	47	Cotton, wool.
DAMIETTA	36	Fish, rice.
ISMAILIA	10	(Central station of the Suez Canal.)
MANSURA	45	Linen, cotton.
MEDINET EL FAYUM	42	Agriculture.
PORT SAID	61	(Coaling station at north end of Suez Canal.) Cotton.
SUEZ	11	(Port at south end of Suez Canal.)
SIUT	44	Pottery, ivory works, ornamental wood.
TANTA	59	(Noted for its fairs and festivals.)
ZAGAZIG	39	Cotton and grain centre, cotton factories.

CAPITAL.—*Cairo*. Population 740,000.

COMMERCE.—Trade is chiefly carried on with the following countries: Great Britain (the largest share), United States, British Colonies in the Far East, Italy, Greece, France, China, and Turkey.

CHIEF IMPORTS.—Textiles, metals and metal goods, coal, timber, hardware, cereals, vegetables, tobacco, etc.

CHIEF EXPORTS.—Cotton, cigarettes, sugar.

COMMUNICATIONS.—There are about 1,700 miles of state railways (excluding the auxiliary railways of Upper Egypt and the Western Oases railway); there are 816 miles of light railways owned by public companies. There are 4,563 miles of telegraphs, with 12,000 miles of wire.

GOVERNMENT.—From 1841 to 1914 the governor of Egypt bore the title of *Khedive*. On the establishment of the formal protectorate the ruler bears the title of *Sultan*. There is a Council of Ministers appointed by the Sultan, with a president who acts as prime minister. There is a *Legislative Council* consisting of the ministers, 66 elected members, and 17 nominated members. This body is mainly consultative, the legislative power resting with the Sultan and his ministers.

SUEZ CANAL

The Suez Canal is the property of an Egyptian company, authorized by the Viceroy in 1856, and confirmed in 1866, the concession having been granted to the late M. de Lesseps for 99 years from November, 1869. The canal was opened in 1869. The length of the canal is 99 miles, 24 miles of which are natural lakes, with four miles of approach channels for the harbours; its width is 37 metres (121 feet 5 inches). The maximum draught of water allowed for vessels using the canal is 30 feet. The canal cost \$120,000,000 to construct and enlarge. *Port Said* is at the Mediterranean end of the canal and *Suez* at the Red Sea end.

By a convention, signed on October 29, 1888, the canal was exempted from blockade, and vessels of all nations, whether armed or not, are to be allowed to pass through it in peace or war. The management of the canal is entrusted to a council of 32 administrators, of whom ten are British (three representing the British Government and seven the ship-owning interest).

ANGLO-EGYPTIAN-SUDAN

(See Map, p. 55)

The Sudan has been jointly occupied by British and Egyptian forces since its reconquest by Lord Kitchener in 1898. It extends from the southern boundary of Egypt at 22°N. lat. to the northern shore of the Albert Nyanza at 2°19'N. lat., and reaches from the French Sahara to the north-west boundary of Eritrea, being about 1,400 miles from north to south and 1,200 miles from east to west at its extreme limits.

PRODUCTS AND INDUSTRIES.—About 2,500,000 acres are under cultivation. The chief crop is *dura* (African millet), which forms the staple food of the Sudanese. *Wheat, barley, dates, lentils, beans, onions, and melons* are also grown, and *ground-nuts and sesame* are produced for oil, while an excellent quality of *cotton* is also grown. *Timber, gum, and rubber* are obtained from the forests.

The *live stock* includes camels, horses, cattle, sheep, goats, and asses, while ostrich farms are established in the central region.

Gold was once worked in large quantities and the mines of Um Nabardi have been reopened. *Lignite, iron, and copper* are known to exist, and the last two are worked by natives in the Bahr-el-Ghazal province.

CHIEF TOWNS.—*Khartum*, the capital (population, 23,000); Omdurman, the old Dervish capital (population, 60,000); Kassala (population, 10,000); Suakin (population, 12,000); El Obeid (population, 16,000); and Port Sudan.

COMMUNICATIONS.—About 1,500 miles of railway are open for traffic. Since the opening of the eastern railway the Red Sea ports of Port Sudan and Suakin receive much of the trade which formerly passed northward. South of Khartum, communication is established by steamers and boats on the Blue and White Niles, Sobat and Bahr el Ghazal; and inland chiefly by camels and donkeys.

BRITISH EAST AND CENTRAL AFRICA

(See Maps, pp. 55, 56)

The Germans obtained a footing on the mainland opposite Zanzibar between 1880 and 1885. In 1888 the Imperial British East Africa Company received a royal charter, having been granted a few years previously by the Sultan of Zanzibar administrative rights over his mainland possessions. In 1890 the respective spheres of Great Britain and Germany were settled by agreement, and Zanzibar became a British protectorate. The annexation by the French of the island of Madagascar places them in a

position of importance on the East Coast, although their influence does not extend to the mainland. The rivalry of European powers has resulted in the division of the territory on the East into "spheres of influence," the definition of whose boundaries has given rise to much diplomatic negotiation, and is not yet finally completed.

The British dependencies in East and Central Africa consist of Somaliland, East Africa Protectorate, Uganda, Zanzibar, and Nyasaland.

SOMALILAND.—The Somaliland Protectorate forms the northeastern horn of the African continent. The chief town is *Berbera* (pop. 30,000). The imports are chiefly rice, dates, sugar, and textiles; the exports, hides and skins, gum and resins, ghee (clarified butter), cattle and sheep. Transport is by camels; there are no porters.

EAST AFRICA PROTECTORATE.—The East Africa Protectorate includes the whole of the coast from the Uмба to the Juba River, as also the vast territories in the interior bounded in part by international conventional lines. On the west the Protectorate adjoins that of Uganda. A great portion of this vast region consists of pasture lands or barren wastes, but there are extensive districts of great fertility on the coast, as well as in the interior. *Mombasa* is the largest town (population, 30,000); *Nairobi* is the capital (population, 14,000). Mombasa possesses possibly the finest harbour on the east coast of Africa.

The chief products are ivory, grain, rubber, fibre, and copra. The chief imports are piece-goods, rice, grain and flour, building materials, European provisions, etc. The importation of arms and ammunition is prohibited, except under the most stringent regulations, and the introduction and local manufacture of spirits is also heavily checked. Communication with England is by the Union Castle Line *via* Suez Canal.

UGANDA.—The Uganda Protectorate lies between the Belgian Congo on the west and the East Africa Protectorate on the east. The native capital of the country is *Mengo Kampala*, but the headquarters of the administration is at *Entebbe* on the shores of Lake Victoria Nyanza.

The chief products are cotton, coffee, skins, cotton seed, rubber, and ivory. Iron ore abounds, and wheat grows well. The chief imports are yarns and textiles, provisions, hardware, railway materials, agricultural implements, and machinery.

The so-called *Uganda Railway* lies wholly in the East Africa Protectorate. It runs from Mombasa, on the coast, to Port Florence, on the northeast corner of the Victoria Nyanza, a distance of 584 miles. Motor transport is increasing with the development of the country.

ZANZIBAR.—The Zanzibar Protectorate consists of the island of Zanzibar and the island of Pemba. The capital is *Zanzibar* (population, 35,000), which has a fine roadstead. The legal status of slavery was abolished in April, 1897, and domestic slavery in 1908.

The products are mainly cloves (92 per cent of the entire clove crop of the world), ivory, copra, hides, gum-copal, rubber, etc. The chief imports are piece-goods, ivory, copra, rice, groceries, and coal.

There is direct communication with the United Kingdom by the Union Castle, and also a monthly cargo service by the British Steam Navigation Company. There are through steamers to and from Europe by the Messageries Maritimes and the Societa Nazionale de Servizi Marittimi, and a three-weekly service to and from Bombay by the latter company.

NYASALAND.—The Nyasaland Protectorate forms the eastern portion of British Central Africa. The chief products are cotton, tobacco, chillies, coffee, ground-nuts, maize, wheat, rubber, and fibre. The cultivation and export of cotton and tobacco are extensive. Ivory and tea are also exported. The chief imports are soft goods, provisions, and hardware. The chief towns are *Zomba*, the capital, and *Blantyre* (population, 8,500).

Communication is maintained between Port Herald and *Chinde*, situated in Portuguese territory at the mouth of the Zambezi, by the African Lakes Company's steamers and the British Central Africa Co.; and between *Chinde* and Europe, by means of the Union Castle Mail S. S. Co., the British Indian Steam Navigation Co., and Rennie's line *via* Natal.

BRITISH WEST AFRICA

(See Map, p. 55)

The West Coast of Africa has been eagerly frequented by European traders since it was first explored by the Portuguese in the latter part of the fifteenth century, just before the discovery of America by Columbus. In the seventeenth century all the chief maritime nations of Europe, except the Spaniards, had forts or factories established on the coast, from which they supplied slaves to their plantations in the West Indies and on the mainland of America. The importance of the coast was much diminished at the commencement of the nineteenth century, when the slave trade was suppressed, and the Dutch and the Danes relinquished their possessions; but a healthier interest in the West Coast has since arisen in the development of a legitimate trade in tropical products.

The British dependencies consist of Gambia, the Gold Coast (including Ashanti and the Northern Territories), Sierra Leone, and Nigeria.

GAMBIA.—Gambia is the most northerly and the oldest British settlement on the coast of West Africa. The colony consists of St. Mary's Island, British Kombo, and various other islands and territories on the banks of the river Gambia. The area of the colony proper is four square miles, and of the protectorate 4,500 square miles. *Bathurst*, the capital (population, 9,000), is on St. Mary's Island. The chief products are ground-nuts (which form 70 per cent of the total exports), beeswax, palm kernels, hides, and calabashes. The ground-nuts are sent chiefly to Marseilles, where the oil is extracted and used for the same purpose as olive oil. Small quantities of cotton, rice, maize, and *kous* (a kind of millet) are produced in the districts bordering the Gambia. The chief imports are cotton goods, kola-nuts, rice, spirits, hardware, soap, sugar, wine, and tobacco.

GOLD COAST.—The Gold Coast Colony and Protectorate is bounded on the east by Togoland and on the west and north by the French colonies of the Ivory Coast and French Sudan. The territories in the hinterland to the north of Ashanti were made a separate district in 1897 under the name of the *Northern Territories*. The dependency of *Ashanti* lies inland, at the

back of the central portion of the colony. The chief products are palm oil, palm kernels, rubber, cocoa, timber, gold, etc. The country is rich as regards both minerals and agriculture. The chief imports are textiles, hardware, and alcohol. Trade is principally with the United Kingdom.

The chief towns are: *Akkra*, the capital (population, 20,000), Kumassi (population, 19,000), Cape Coast Castle (population, 11,000), Sekondi (population, 9,000).

SIERRA LEONE.—The colony of Sierra Leone on the west African coast was used toward the end of the eighteenth century as an asylum for the many destitute Negroes then in Great Britain. Later the colony was used as a settlement for Africans from North America and the West Indies, and large numbers of Africans rescued from slave-ships have from time to time been liberated and settled there.

The chief products are palm oil, palm kernels, kola-nuts, hides, piassava, and ginger. The chief imports are cotton goods, coal, hardware, provisions, apparel, and tobacco. *Freetown*, the capital (population, 34,000), has the finest and most important harbour in West Africa.

NIGERIA.—The Colony and Protectorate of Nigeria is situated between Dahomey on the west and the Kameruns on the east. The Protectorate is in two main divisions, the Northern Provinces which coincide with the former protectorate of Northern Nigeria, and the Southern Provinces, which coincide with the former protectorate of Southern Nigeria.

The country is very fertile, and agriculture is the chief industry, the crops consisting of cotton, ground-nuts, maize, rice, guinea-corn, yams, cassava, and tobacco. The exports consist of palm oil and kernels, gum-copal, rubber, mahogany, hides, skins, and ground-nuts. Tin mining is carried on in the Northern provinces. Coal is also worked. The chief imports are cotton goods, hardware, cutlery, bicycles, kerosene, provisions, spirits, tobacco, soap, haberdashery, and building material. Slave dealing is now practically non-existent. The principal ports are *Lagos*, the capital (population with suburbs, 102,000), Warri, and Forcados.

RHODESIA

(See Map, p. 56)

In 1889 a royal charter was granted to the British South Africa Company, conferring upon it large administrative powers in the region north of the Transvaal, now known as Rhodesia, named after the great South African administrator Cecil John Rhodes (1855-1902). The company was authorized to promote trade and to work mineral and other concessions in those regions. Rhodesia is divided into two portions by the river Zambezi.

NORTHERN RHODESIA.—A considerable portion of Northern Rhodesia was first opened to British influence by Livingstone. This territory is partly occupied by native tribes living under their own chiefs, but large tracts are being opened up for European settlement. Nearly 1,000,000 acres are under settlement by whites, who are chiefly engaged in stock raising. There are large herds of native cattle. Game is also abundant. The country is well wooded and well watered. Considerable mineral deposits, especially copper, have been found. Indigenous rubber is also found in large areas.

SOUTHERN RHODESIA.—Southern Rhodesia includes the two provinces of Matabeleland and Mashonaland, and lies between the northern boundary of the Transvaal on the south and the Zambezi on the north, with Portuguese East Africa on the east. The climate is well suited for Europeans, and for the cultivation of European fruit trees, cereals, and vegetables, besides tobacco, and the indigenous products of the country. Southern Rhodesia is rich in minerals, and abounds in traces of the ancient gold-workers. Gold, silver, copper, coal, lead, diamonds, asbestos, chromite, and other minerals are produced in considerable quantities.

Salisbury (white population, 4,000) is the seat of government, and is situated on the Mashonaland plateau, 4,880 feet above sea level. *Bulawayo* (white population 5,300) is the largest town in Matabeleland, and is 4,469 feet above sea level.

The railway running northeastward from Cape Town, which it is hoped will become the "Cape-to-Cairo" line, already crosses Rhodesia, and extends well into the Belgian Congo.

BECHUANALAND PROTECTORATE

(See Map, p. 56)

The Bechuanaland Protectorate extends from the Molopo River in the south to the Zambezi in the north, and is bounded on the east by the Transvaal and Matabeleland and on the west by Southwest Africa. The country is pastoral, although when the rainfall is adequate crops of Kaffir corn and mealies (maize) are raised. Large numbers of cattle also are reared.

The railway from Kimberley to Vryburg and Mafeking crosses the protectorate on its way to Rhodesia. The chief European centres are *Gaborone*, *Francistown*, and *Serowe*. The headquarters of the British administration are at Mafeking, Cape Province.

SWAZILAND

(See Map, p. 56)

The Swaziland Protectorate is bounded on the north and west by the Transvaal, on the south by Natal, and on the east by Natal and Portuguese East Africa. In 1894 Swaziland was placed under the administration of, but not incorporated with, the South African Republic; the British Government now controls the territory.

The agricultural products are maize, millet, ground-nuts, beans, pumpkins, and sweet potatoes, grown only in sufficient quantities for local supply. Tobacco is grown in parts, and experiments in cotton growing have been successful. Alluvial tin and gold are mined. Cattle-ranching on a large scale has been begun by several companies. *Mbabane*, the headquarters of the administration, is the only town in the protectorate.

BASUTOLAND

(See Map, p. 56)

The British territory of Basutoland lies between Natal, Orange Free State Province, and Cape Province. Basutoland is one of the best grain-producing districts in South Africa, while the abundant grass enables immense herds of cattle to be raised. Most of the country is mountainous and rugged. The chief exports are grain, cattle, horses, and wool; the imports are mainly hardware, groceries, and blankets. Maseru is the capital (population, 1,300).

UNION OF SOUTH AFRICA

(See Map, p. 56)

The Cape of Good Hope was discovered in 1486 by Bartholomew Diaz, the commander of one of the many expeditions sent out by successive kings of Portugal to discover an ocean route to India. Diaz merely doubled the Cape and returned home. Eleven years later, in 1497, Vasco da Gama not only doubled the Cape and landed in what is now Natal, but successfully accomplished the voyage to India. The Portuguese, however, did not make any permanent settlement at the Cape, although it was used by their vessels, and subsequently also by those of England and Holland, as a place of call in going to and from the East Indies. In 1652 the Netherlands' East India Company took possession of the shores of Table Bay, established a fort, and occupied the adjacent lands, in order to be always ready with supplies for their ships passing. In 1814 the Cape was formally ceded to the British Crown.

COMMUNICATIONS.—On the establishment of the Union in 1910, the state railways of the respective colonies were merged into one system, the South African Railways, under the control of the Union government. The total open mileage is 8,924 miles (comprising Cape Province 3,964, Orange Free State 1,265, Transvaal 2,492, and Natal 1,203), of which 8,404 miles are 3 feet 6 inches gauge and 520 miles 2 feet gauge. There are 16,000 miles of telegraph line and about 5,000 miles of telephone line.

The following British steamship lines call at the Cape: Aberdeen Line, Bucknall Steamship Lines, Clan Line, Harrison Line, Houston Line, Natal Line, New Zealand Shipping Company, Shaw, Savill & Albion Line, Union-Castle Line, and White Star Line.

GOVERNMENT.—By the South Africa Act, 1909, the self-governing colonies of the Cape of Good Hope, Natal, the Transvaal, and the Orange River Colony were united on May 31, 1910, in a legislative Union under one government under the name of the *Union of South Africa*, those colonies becoming provinces of the Union under the names of the Cape of Good Hope, Natal, the Transvaal, and the Orange Free State respectively. The governor-general of the Union is appointed by the king. There is an Executive Council to advise the governor-general in the government of the Union. The legislature consists of two houses, a Senate and a House of Assembly. Pretoria is the seat of the government; Cape Town is the seat of the legislature.

CAPE OF GOOD HOPE.—The Province of the Cape of Good Hope, or Cape Province, as it is more commonly called, occupies the extreme southern portion of Africa. The natural products are wheat and other cereals, wool, and extensive vineyards. The breeding of horses, cattle, sheep, and ostriches is carried on. The chief minerals worked are copper, coal, and gold. The principal diamond fields are centered at Kimberley. The chief exports are gold, diamonds, wool, ostrich feathers, mohair, hides and skins, copper ore, and aloes. The chief trade is with the United Kingdom; among foreign countries the greatest supply of imports comes from the United States. Before the Great War Germany came next. The imports consist chiefly of food and drink, machinery, textiles, hardware, iron and steel, apparel, agricultural implements, electrical fittings, chemicals, drugs, arms and ammunition.

Cape Town is the capital (population, 67,000 with suburbs, 150,000). Cape Town is 5,979 miles from Southampton, England; transit, sixteen days.

NATAL.—The Province of Natal derives its name from the fact of its discovery on Christmas Day, 1497, by the celebrated Portuguese navigator, Vasco da Gama. The first European settlement was formed in 1824 by a small party of Englishmen, who came by sea and established themselves on the coast where Durban now stands. Natal was then a part of the Zulu kingdom. Between 1835 and 1837 another settlement was formed by a large body of Dutch Boers, who came with their wagons overland from Cape Colony and settled in the northern districts where to this day the Boers preponderate. In 1843 Natal was proclaimed as British and annexed to Cape Colony. In 1856 it was made a separate colony, and in 1893 acquired a responsible government.

The race question in Natal is complicated by the presence of large numbers of East Indian subjects of the Crown, brought over during the latter half of the nineteenth century to supply the deficiency of local labour.

The chief products are wool, fruit, cereals, wattle bark, coal (a rapidly growing industry), iron, gold, and sugar. Pietermaritzburg is the capital (population, 30,000). The city stands about 54 miles inland from Durban.

TRANSVAAL.—The Transvaal was formed as the *South African Republic* by parties of Dutch Boers from the English colonies, who "trekked" into the interior of the continent and wrested the land across the Vaal River from the native chiefs. The discovery of the gold fields within its borders led to the settlement of large numbers of foreigners, and eventually to hostilities with the British Government. A war of nearly three years' duration (1899-1902) was fought with great tenacity, and its close was marked by the inclusion of the South African Republic within the British Empire, "responsible government" being granted almost immediately.

The Transvaal offers great facilities for agriculture and stock-raising. Coal of fair quality is found. Gold mining, however, is the chief source of wealth. The chief exports are gold, cattle, hides, wool, grain, and ostrich feathers. Pretoria is the capital (population, 49,000). The principal town is Johannesburg, the centre of the Witwatersrand goldfields; population, 237,000 (white 120,000, coloured 117,000).

ORANGE FREE STATE.—The Orange Free State was founded, in much the same way as the Transvaal, by Boer emigrants from Cape Colony, and

its independence was granted in 1854. Its subsequent history is identical with that of the Transvaal.

The country is not well suited for agriculture, but good grazing is afforded by the rolling plains, and stock and sheep farming are extensively carried on. Coal is abundant in the north of the province. Bloemfontein is the capital; population, 27,000 (white 15,000, coloured 12,000).

CHIEF CITIES AND INDUSTRIES OF THE UNION

CITY	POP. IN THOUSANDS	INDUSTRIES
<i>Cape Province</i>		
CAPE TOWN*	67	Wool, wine.
EAST LONDON	21	Wool, ostrich plumes.
GRAHAM'S TOWN	14	Ostrich farming.
KIMBERLEY	30	Centre of diamond industry.
KING WILLIAM'S TOWN	9	Sweets and jams, candles, soap, matches, wool, leather and hides.
PAARL	11	Wine, brandy, wagons, carriages, granite.
PORT ELIZABETH	31	Jam and confectionery works, oil, candle and explosive works, saw-mills, flour-mills, tanneries.
<i>Natal</i>		
PIETERMARITZBURG*	30	Brickmaking, tanning, and brewing.
DURBAN	69†	(Principal seaport of Natal.) Railway works.
<i>Transvaal</i>		
PRETORIA*	49	Wool, hides, cattle, grain.
JOHANNESBURG	237	Gold-mining, brewing, printing, flour-mills, iron and brass founding, tobacco.
<i>Orange Free State</i>		
BLOEMFONTEIN*	27	Agricultural centre.
HARRISMITH	7	Wool, hides.
JAGERSFONTEIN	9	Diamonds.

*Capital of state.

†With suburbs, 90.

FRENCH DEPENDENCIES

(See Maps, pp. 55, 56)

The French possessions in Africa are considerable. In the north are *Algeria* and *Tunis*; while *Morocco* is now predominantly French. Among the chief products of Morocco are cereals, hemp, oil, and such fruits as the fig, almonds, pomegranate, lemon, orange, olive, and date.

The French have extended their rule southward over the greater part of the western Sahara and much of the Sudanese savanna lands, reaching the Guinea coast at several points; in the Congo region the French dominions extend south of the equator.

Madagascar was conquered by the French in 1895, and made a French colony in the following year. Cattle herding and agriculture are the chief occupations. The island has rich deposits of gold, copper, iron, and lead, and extensive forests of valuable timber. The exports of Madagascar consist of rice, cattle, hides, gum, rubber, wax, sugar, cotton, raffia, and coffee. The capital is *Tananarivo* (population, 95,000). *Tamatave* is the chief port.

PORTUGUESE DEPENDENCIES

(See Maps, pp. 55, 56)

The Portuguese were the pioneers of European civilization in Africa. To-day their possessions in West Africa consist of Angola and Kabinda; the chief town *Loanda* (population, 20,000) is one of the few good ports on the west African coast. A small portion of the Guinea coast is Portuguese.

Portuguese East Africa consists of the two districts of Lourenço Marques and Mozambique, which are separated from one another by the river Zambezi, and the smaller districts of Inhambane, Gaza, and Tete. The chief products are ore, sugar, ivory, rubber, and wax. The chief ports are Mozambique (population, 8,000), Quilimane (population, 6,000), Chinde (population, 2,000), Beira (population, 4,000), and Lourenço Marques (population, 10,000).

ITALIAN DEPENDENCIES

(See Map, p. 55)

Italian enterprise in Africa falls within our own times. On the Red Sea the colony of *Eritrea* consists of a triangular portion of sandy lowland, with a coast-line of about 700 miles. The capital is *Asmara*, near which are gold mines. The chief port is *Massaua*, which has a good harbour; pearl fishing is carried on here. Salt is the principal product, and is of great value as being the monetary currency of southern Abyssinia.

Italian Somaliland extends along the east coast from British Somaliland to the course of the Juba. Cattle rearing is the chief occupation. *Mogadisho* is the headquarters of the administration.

The territories of *Tripoli* and *Cyrenaica* were acquired in 1912 by conquest and cession from the Ottoman Empire. The chief products are esparto fibre, hides and skins, ostrich feathers, and sponges. About one-fourth of the trade is with the Sudan by caravans. The capital is *Tripoli* (population, 30,000).

SPANISH DEPENDENCIES

(See Map, p. 55)

The Spanish colonies, exclusive of the Canary Islands and Ceuta, etc., which form an integral part of the kingdom, consist of certain settlements and islands of western Africa.

Fernando Po in the Bight of Biafra is a mountainous island with forests of oil-palm, ebony, mahogany, and oak. Its chief products are sugar, cotton, indigo, cocoa, coffee, tobacco, vanilla, and kola-nut. The capital is *Basile*.

Spanish Guinea, or the Muni River Settlements, is on the coast between Kamerun and French Congo. Cocoa, coffee, and bananas are cultivated, and palm oil, palm kernels, rubber, and other forest produce is exported.

Rio de Oro and Adrar, on the northwest coast of Africa, is part of the waterless Sahara, sparsely populated by wandering Arabs. Cattle, sheep, and camels are bred where vegetation permits. There are valuable fisheries off the coast.

The Spanish "presidios," or fortified settlements, on the Moroccan seaboard are no longer used as convict settlements. The Spanish zone in Morocco was defined in the Franco-Spanish treaty of Madrid (November 27, 1912). *Tangier* and its district (about 140 square miles) is excluded from the Spanish zone and is internationalized.

BELGIAN CONGO (See Maps, pp. 55, 56)

The Congo Free State, as it was formerly called, was founded in 1882 by King Leopold II. of Belgium and bequeathed to the Belgian Government,

passing into the hands of the latter in 1908. The transfer was not recognized by Great Britain until 1913, on account of forced labour and other irregularities existing under the former régime.

The exports from the Belgian Congo consist chiefly of rubber, palm kernels, palm oil, and ivory. The coffee plant and cotton grow wild, and coffee, cacao, and tobacco have been planted with success. The area is estimated at about 900,000 square miles; the native population at about 15,000,000. A terrible disease, called "sleeping sickness," has of late years made increasing ravages upon the native population and threatens to depopulate large districts, especially along the banks of the Congo River and its principal tributaries.

ASIA

(See Maps, pp. 57-70)

THE CRADLE OF MANKIND.—Asia is generally regarded as the cradle of the human race. It is the birthplace of the great religions of the world—the Jewish, the Hindu, the Buddhist, the Zoroastrian, the Christian, and the Mohammedan. Next to Egypt Asia possesses the oldest historical monuments in the world. The Old Testament contains the earliest historical records which we have of any nation in the form of distinct narrative. The period at which Moses wrote was probably 1,500 or 1,600 years before Christ. In China authentic history goes back to about 1,000 B. C., with a long preceding period of which the names of dynasties are preserved without chronological arrangement. In regard to the history of the ancient kingdoms of Assyria, Babylonia, Media, and Persia, much light has been obtained from the decipherment of cuneiform inscriptions. The Persians, the Romans, the Arabians, and the Mongols each in turn have dominated a large part of Asia.

The discovery by the Portuguese of the passage to India by way of the Cape of Good Hope led to their establishment on the coast of the peninsula in 1498. The Portuguese were speedily followed by the Spanish, Dutch, French, and British. The struggle between the two last powers for supremacy in India was completed by the conquest of the principal French settlements (1760-1765).

The forms of government in Asia at the present time range from the primitive rule of the nomad sheik to the republic of China. India has been brought by Great Britain directly under European influence, while Japan and to a lesser extent China are also modelling their institutions on those of the West.

RACES OF ASIA.—The inhabitants of Asia belong mostly to two great races: the *Mongolian* or Yellow type, and the *Caucasic* or Fair type. The Mongolian type is the most numerous represented, and includes two-thirds of the whole population of the continent. The Mongolians may be divided into two groups: (1) those speaking polysyllabic languages, including the various Finno-Tatar and Turki-Tatar races of north and central Asia, the true Mongolians, and the Manchus, all of whom may be grouped as Ural-Altai Mongols, and are to be distinguished from the Koreans and the Japanese. (2) Those speaking the so-called monosyllabic languages, including Chinese, Tibetans, Burmese, Siamese, and Annamese, and various hill tribes of the Himalayas.

The Fair type is represented in Asia by the Semitic peoples of Syria and Arabia, the numerous tribes of the Caucasus, the Slavonic people of Asiatic Russia, and the Aryan inhabitants of Persia and northern India.

The Black type is represented in the south by the Dravidians of southern India and Ceylon, and by the Negritos of the Malay Peninsula and Archipelago.

MODERN JERUSALEM

For many centuries Jerusalem has been what it will long remain—the Holy City. To the Jew it is the city of David and Solomon, to the Christian the city where our Lord was crucified, to the Mohammedan also a city hallowed by many traditions, and by the memory of its conquest by Omar and Saladin. The city may be still described in the words of the Psalmist: "Jerusalem is builded as a city that is compact together; whither the tribes go up" (Psalm cxxii, 3).

The location of the city has been changed, or rather it occupies but a part of the ground covered by the Jerusalem of Herod and his immediate successors. The old city, including the Mosque area, covers only 209½ acres. At the time of its greatest importance it must have embraced within its walls nearly three times as much territory, and, judging from the estimates of its population at that time, the houses must have been even more closely built than now. That they are close enough at present no one who has examined them will question, and yet there are several quite good-sized pieces of vacant land. The houses are generally poor and patched, and have a mottled and ancient appearance. The mottled aspect is due to the fact that the stones composing the walls have done previous duty in buildings or walls that have fallen before the besieger. The ancient look is genuine; they are old; some of them were quarried thousands of years ago. Many of the interior walls are supported by props stretching overhead across the narrow streets and braced against some stronger wall. They have an ominous "bulge," which means that some of these days they are going to spill out over the street in spite of their supports. The wonder is how some of them resist the law of gravitation even now. There are old arches in every part of the city which have some mysterious way of keeping up, when from all appearance they ought to fall immediately. The crowds pass and repass, however, unconscious of their danger.¹

Many scenes in modern Jerusalem rise before me in recalling the times when I lived within the walls, writes Colonel Conder, and passed so many days in the Temple enclosure, or in that grim church, defiled with blood, which some among us are glad to think of as not marking the new sepulchre without the city where the Prince of Peace was laid. But two scenes especially come back to mind.

The first is that of the sleeping town before the gates were opened to admit the peasant women and their donkey-loads of cakes and vegetables. In the purple gloom the domes are beginning to shine, wet with the heavy dew, as the light spreads behind Olivet "as far as Hebron"—to quote the Mishnah. The silence is broken suddenly by the musical cry of the Muedhdhin² on the minaret of a mosque—a long, rolling, and tremulous note, echoing all over Jerusalem, as he "testifies there is no God but God," and calls to the faithful that "prayer is better than sleep." The simple dignity of Islâm contrasts with the superstition, the hurried services, the tawdry magnificence of degraded Eastern churches, and

¹E. S. Wallace. "Jerusalem the Holy" (1898).

²Muezzin, a Mohammedan crier of the hour of prayer.

we understand how it was that the reformed faith of Muhammad conquered Asia.

The second scene is that of the summer noon, which presents to us an epitome of the long history of the Holy City. The great Herodian tower of the upper city glares with tawny stone against the blue sky. The rough cobbles of the slippery market-place are crowded with chattering peasants. A few pious Moslems, unconscious of the world, are praying with their faces toward Mecca on the steps of the Protestant bishop's palace, where the town dogs also lie in summer, but go down to the covered bazaar when the winter rains and snow begin. The Armenian patriarch is being escorted, from St. James on Sion to the Holy Sepulchre, by a modest procession. A Moslem bier passes by, and men crowd round it to lend their shoulders for a few steps as a pious act. The little Pharisee, with his lovelocks and dirty gaberdine—or resplendent in his fur cap on the Sabbath, just as Rembrandt drew his fathers—is jostled in the narrow street of David, yet holds his fingers on the pulses of the city life. Above the cries of the water-seller and the chinking of the brass sherbet-cups, the screams of women and the jangling of the metal plates that serve for bells in churches, rises one recurrent note from the blind beggar who wanders through the streets, forever calling aloud to the “everlasting God.” We might almost expect to see a Templar ride by, with his white gown and blood-red cross over the mail coat, or the page of some Frankish noble in stripes of yellow and crimson. But instead we witness the long procession of half-naked Dervish fanatics, with banners, on their way to the Haram, and then to the “tomb of Moses” west of Jericho. They bear spears and swords, and are preceded by jesters with fox-tails or by a convict who has been tarred and covered with cotton wool—ancient survivals of pagan Saturnalia. The Jew, the Greek, the Copt, the Georgian, the Armenian, the Arab, and the Turk mingle with the modern European and with the Franciscan monk from Italy in the narrow lane; and black-veiled ladies, with white Damascene asses, are led to the shops, or to the lower fruit-market which glows with colour, its green and gold contrasting with the violet or rich brown robes of the merchants. The whole history of Jerusalem is represented by its crowd to-day.¹

RIDING DOWN EAGLES ON THE PAMIRS

We are now in what is known as the Syrt country, writes Colonel Younghusband. There was no particular road, but the tracks of animals. We had brought a Kirghiz with us to show us the way, but he now refused to do so, and eventually left us stranded in the midst of a series of bare, low hills and sterile plains, without apparently any water, or any inhabitants, or any special road. We knew, too, that what people we should meet had not a good reputation, and were said to rob and murder travellers occasionally, and matters looked unpleasant. We pushed on, however, in the general direction of Kashgar, and toward evening, after a very hard march, reached an encampment of six tents. The owner of the one we applied to was very surly, but eventually agreed to give us accommodation for the night.

As we entered the tent, I was startled on seeing a huge, fierce-looking eagle tied by the leg just by the door. From all appearances, it would require very little provocation to cause it to fly at one, and I was relieved when I found myself safely past it. It was one of the eagles which the people of the part keep for hawking purposes, and with these they secure even small deer. I never saw them at this sport, but I recollect some years afterward, on the Pamirs, seeing a Kirghiz catch an eagle for this purpose by *riding* it down. When I first saw the man starting off to gallop down an eagle, I thought he must be mad. We had seen two eagles on the ground in the distance, and as soon as the Kirghiz caught sight of them he set off wildly after them. They, of course,

rose on seeing him, but he went careering down the valley after one of them till gradually the bird sank down to the ground. It was, in fact, gorged with the flesh of the carcass it had been feeding on, and could no longer fly. The Kirghiz dismounted, seized hold of the bird, bound his waist-cloth round and round the body and wings till he had made it up into a neat parcel, and then tucked it under his arm, mounted, and rode back to me. He said that, if it turned out to be a good one for hawking, he might get two hundred rupees [about \$66] for it.¹

A ROBBER'S STRONGHOLD IN CENTRAL ASIA

We retraced our steps to the junction of the Shimshal River, and ascended the valley through which it flows. Up this valley, at five miles from its junction with the Oprang, is a Kanjuti outpost called Darwaza, or “the gate.” It was from this place that the raiders started on their expeditions, and as we ascended the wild, narrow mountain valley in which it is situated, we wondered what sort of reception we should meet with from these robber bands.

Rounding a spur, we saw in the distance a tower erected on the top of a cliff, and approaching nearer we saw that the whole line of the cliff, where it was at all accessible, was covered by a loop-hole wall, at the upper end of which was a second tower. The cliff formed the bank of a deep ravine, which cut transversely across the main valley. Looking up the valley on the right was the unfordable Shimshal River; on the left were precipitous mountains, and in front this deep ravine. The only possible way up the valley was by a difficult zigzag path up the side of this ravine, and that was guarded by the two towers. Some smoke was curling up from these towers, so we knew that they were tenanted, and the exciting moment had now arrived when we should have to beard these raiders in their very den.

I carefully reconnoitred the position with my field-glasses, so as to be able to decide on our best plan of action in case of a hostile reception. The path zigzagged down one side of the ravine, which was about two hundred feet deep, and up the other, and passed immediately under the wall and through a gateway in the tower. It would have been impossible to effect an entrance if the Kanjutis chose to be hostile, for even if they did not fire at us, they could have annihilated us by hurling down stones. I thought, therefore, that my best plan would be not to commit my whole party to such a risk, but to go on with an interpreter, and leave the Gurkhas on the top of the cliff on our side of the ravine, to cover the retreat in case the Kanjutis proved hostile.

We had descended to the bottom of the ravine, and climbed halfway up the opposite bank. The door through the tower was still open, and no one could be seen about, when suddenly the door was banged, the wall was manned by wild-looking Kanjutis, shouting and waving us back, and pointing their matchlocks at us. We were not fifty feet from them, and I expected at any moment to have bullets and stones whizzing about our ears; so I halted and beckoned to them, holding up one finger and signing to them in this way to send one man down to us. Gradually the hubbub ceased; they still kept their matchlocks pointed at us, but the door was opened and two men came down to us. We had a long parley together, and I told them who I was, that I was coming to visit their chief, and that Captain Durand had already spoken to Safder Ali about my coming. They said they had heard of this, but they wished to make quite sure that I had not an army with me, so I sent them to count for themselves exactly how many men I had. The Gurkhas then joined me, and we passed through the tower together; but just at the entrance, which was lined with Kanjutis in a double row, a man rushed at my pony and seized the bridle. I thought for a moment there was treachery. The Gurkhas sprang forward, and in half a second there would have been a scrimmage, when the man let go, and laughed, and said he had only intended it as a joke. . . . We stood together for a long time round the fire, a curious

¹Col. C. R. Conder, “The City of Jerusalem” (1909).

¹F. E. Younghusband, “The Heart of a Continent” (1896).

group—rough, hard, determined-looking Kanjutis, in long, loose woollen robes, round cloth caps, long curls hanging down their ears, matchlocks slung over their backs, and swords bound to their sides; the timid, red-faced Kirghiz; the Tatar-featured Ladakis; the patient, long-suffering Baltis; the sturdy, jovial little Gurkhas; the grave Pathan, and a solitary Englishman, met together here, in the very heart of the Himalayas, in the robbers' stronghold. It is on thinking over occasions like this that one realizes the extraordinary influence of the European in Asia, and marvels at his power of rolling on one race upon another to serve his purpose. An Asiatic and a European fight, the former is beaten, and he immediately joins the European to subdue some other Asiatic.¹

THE WILD YAK OF TIBET

An exceptionally large herd of yaks was grazing at the foot of the rocks on our right, recounts Sven Hedin. Islam rode toward them and took a shot at them. Thereupon the herd divided, the greater part fleeing up the mountains, while the others, nearly fifty of them in a tightly packed drove, made straight toward me and Emin Mirza.

We were alone and without weapons, and felt we were in a pretty tight fix, for the animals seemed to be charging directly down upon us. The leader of the herd was a well-shaped bull; after him a little calf and five old bulls walloped along as hard as they could put feet to ground; while the rear was brought up by Islam on horseback. The yaks were enveloped in a perfect cloud of dust. We could distinctly hear the cracking of their hoofs, and were blindly conscious that in another second or two we should be crushed under the avalanche of their irresistible onrush. It appeared, however, that they had not yet observed us; for no sooner did the leader become aware of us, which he did at about a hundred paces distance, than he swerved aside, and was instantly followed by the entire battalion. This gave Islam his opportunity. He hastily dismounted and placed himself in ambush, and fired at a venture right in the middle of the troop. The bullet struck a bull in the foreleg; then the animal, mad with fury, charged straight upon the sportsman. Islam flung himself into the saddle, and set off as fast as his enfeebled horse was able to gallop. The yak, however, although running on only three legs, caught him up after two or three minutes' chase; but just as he was on the point of tossing horse and rider on his horns, Islam, who saw the danger he was in, turned in his saddle and took aim. But he was so excited he could not aim with the cool deliberation that so perilous a moment demanded. However, the yak was so close to him that it was scarcely possible to miss; luckily, the bullet penetrated in the region of the heart, and thus put an end to the contest.

The yak was a bull about eight years old. The tongue and meat were especially welcome, since our supplies of rice and flour were fast running out. If Islam's last shot had failed he would infallibly have been lost. The chase of the wild yak is perilous, and it does not always have such a happy ending as this.²

BOMBAY, A CITY OF CONTRASTS

The first sight of India is amazing, entrancing, stupefying. Of other countries you become aware gradually: Italy leads up to the Levant, and Egypt passes you on insensibly to the desert. Landed in Bombay, you have strayed into a most elaborate dream, infinite in variety, spinning with complexity, a gallery of strange faces, a buzz of strange voices, a rainbow of strange colours, a garden of strange growths, a book of strange questions, a pantheon of strange gods. Different beasts and birds in the street, different clothes to wear, different meal-times, and different food—

the very commonest things are altered. You begin a new life in a new world.

It takes time to come to yourself. At first everything is so noticeable that you notice nothing. You pin your eyes to the little fawn-coloured, satin-skinned, humped oxen in the carts, to the blue crows that dance and spar in the gutters. They are the very commonest things in India, but just because they are common bullocks—yet with humps!—common crows—yet blue!—their fascination is entralling. The white ducks you wear all day are like a girl's first court dress, and you sit down to breakfast at eleven off a fish called pomphlet with the sensation of a Gulliver.

When things begin to come sorted and sifted, Bombay reveals itself as a city of monstrous contrasts. Along the sea-front one splendid public building follows another—variegated stone façades with arch and colonnade, cupola and pinnacle and statuary. At their feet huddle flimsy huts of matting, thatched with leaves, which a day's rain would reduce to mud and pulp. You sit in a marble-paved club, vast and airy as a Roman atrium, and look out over gardens of heavy red and violet flowers toward choking alleys where half-naked idolaters herd by families together in open-fronted rooms, and filth runs down gullies to fester in the sunken street. In this quarter you may see the weaver twirling his green and amber wool on a hand-loom—a skeleton so simple and fragile that a kick would make sticks of it; go to the street corner, and you see black smoke belch from a hundred roaring mills, whose competition cuts the throat of all the world. In the large open spaces Parsis bowl each other under-hand full-pitches and cry, "tank you, tank you," after the ball; by the rail squats a Hindu, who would like, if only the law would let him, to marry babies and burn widows.

Yet, for all its incongruities, Bombay never will have you forget that it is a great city. If it had no mills it would be renowned for its port; if it had neither it would be famous for its beauty. Its physical configuration is something like that of New York. Bombay lies at the southern end of a long narrow island; its oldest part, the Fort, is toward the southernmost extremity. Here are the landing-piers, the public buildings, the newspapers, the principal business centres. Next comes the native city; and the fashionable quarter for residence once lay northward where the Byculla Club, the best in Bombay, still marks its site. But flowing business, as in New York, has risen and surged over the city; it has washed the native quarter northward, and the Club now stands an almost solitary landmark among cotton-mill chimneys and teeming native tenements. The Europeans, with the ever-multiplying class of rich natives, now live further westward on the Ridge or on Malabar Hill, which, turning south to face the old town, forms the western horn of Back Bay. From the narrowness of the original city, and the four miles' drive between it and the Ridge, it follows that rents are high and land continually more valuable; and from that follows that the native town is not one- or two-storeyed as elsewhere in India, but laid out in great tenement blocks, which lend themselves to picturesqueness and to plague.

So that in the drive from the Apollo Bunder to Malabar Point, all India is unfolded in one panorama. First the business houses and the great buildings—those the richest, these the stateliest in India, and challenging comparison with almost any city in the world. Every variation of design is theirs, but they find a link of uniformity in the red-brown colours common to most, and in the oriental profusion of ornament.

Then suddenly the magician turns his ring and new has become old, plain is coloured, solid is tumbled down, the West has been swallowed up utterly by the East. Cross but one street and you are plunged in the native town. In your nostrils is the smell of the East, dear and never to be forgotten; rapturously you snuff that blending of incense and spices and garlic, and sugar and goats and dung. The jutting houses close in over you. The decoration of Bombay henceforth is its people. The windows are frames for women, the streets become wedges of men. Under the quaint wooden sun-hoods that push out over the serried windows of

¹F. E. Younghusband, "The Heart of a Continent" (1896).

²Sven Hedin, "Through Asia" (1899).

the lodging-houses, along the rickety, paintless balconies and verandahs, all over the tottering roofs—only the shabbiness of the dust and dirty plaster relieves the gorgeousness of one of the most astounding collections of human animals in the world. Forty languages, it is said, are habitually spoken in its bazaars. That, to him who understands no word of any of them, is more curious than interesting. But then every race has its own costume; so that the streets of Bombay are a tulip-garden of vermilion turbans and crimson, orange, and flame colour, of men in blue and brown and emerald waistcoats, women in cherry-coloured satin drawers, or mantles, drawn from the head across the bosom to the hip, of blazing purple or green that shines like a grasshopper. You must go to India to see such dyes. They are the very children of the sun, and seem to shine with an unreflected radiance of their own. If you check your eye and ask your mind for the master-colour in the crowd, it is white—white bordered with brown or fawn or amber legs. But when you forget that and let the eye go again, the scarlets and yellows and shining greens—each hue alive and quivering passionately like the tropical sun at midday—fill and dazzle it anew; in the gilding light the very arms and legs show like bronze or amber or the bloom on ripe damsons. You are walking in a flaring sunset, and come out of it blinking.

For Bombay is indeed a queen among cities. Drive down from the Ridge by the white, flooding moonlight, beneath fleshy green leaves as huge and flowers as languorously gorgeous as in any fairy tale—beneath hundred-fingered fronds of palm and wax-foliaged banyans that feel for earth with roots hanging from their branches; past tall, broad-shouldered architecture rising above these, Western in its design, Eastern in the profusion of its embellishment; looking always out to the blue-veiled bay with the golden lights on its horns. Then think of the factory smoke, the numberless bales of cotton, the hives of coolies, the panting steamers in the harbour, the grim-eyed batteries, and the white warships. Bombay is a beautiful queen in silver armour and a girdle of gold.¹

THE TAJ MAHAL AT AGRA

The jewel of India—the Koh-i-noor of its beauty—is the Taj, the tomb built by the Emperor Shah Jehan, the grandson of Akbar, for his wife, whom he loved with an idolatrous affection, and on her deathbed promised to rear to her memory such a mausoleum as had never been erected before.

To carry out his purpose he gathered architects from all countries, who rivalled each other in the extravagance and costliness of their designs. The result was a structure which cost fabulous sums of money (the whole empire being placed under contribution for it, as were the Jews for the Temple of Solomon), and employed twenty thousand workmen for seventeen years. The building thus erected is one of the most famous in the world—like the Alhambra or St. Peter's—and of which enthusiastic travellers are apt to say that it is worth going around the world to see. This would almost discourage the attempt to describe it, but I will try and give some faint idea of its marvellous beauty.

It stands on the banks of the Jumna, a mile below the Fort at Agra. As you approach it, it is not exposed abruptly to view, but is surrounded by a garden. You enter under a lofty gateway, and before you is an avenue of cypresses a third of a mile long, whose dark foliage is a setting for a form of dazzling whiteness at the end. That is the Taj. It stands not on the level of your eye, but on a double terrace; the first, of red sandstone, twenty feet high, and a thousand feet broad; at the extremities of which stand two mosques, of the same dark stone, facing each other. Midway between rises the second terrace, of marble, fifteen feet high, and three hundred feet square, on the corners of which stand four marble minarets. In the centre of all, thus "reared in air," stands the Taj. It is built of marble—no other material than this of pure and stainless white were fit for a purpose so

sacred. It is a hundred and fifty feet square (or rather it is eight-sided, since the corners are truncated), and surmounted by a dome, which rises nearly two hundred feet above the pavement below.

These figures rather belittle the Taj, or at least disappoint those who looked for great size. There are many larger buildings in the world. But that which distinguishes it from all others, and gives it a rare and ideal beauty, is the union of majesty and grace. This is the peculiar effect of Saracenic architecture. The slender columns, the springing arches, the swelling domes, the tall minarets, all combine to give an impression of airy lightness, which is not destroyed even when the foundations are laid with massive solidity. But it is in the finish of their structures that they excelled all the world. Bishop Heber said truly: "They built like Titans and finished like jewellers." This union of two opposite features makes the beauty of the Taj. While its walls are thick and strong, they are pierced by high arched windows which relieve their heaviness. Vines and arabesques running over the stone work give it the lightness of foliage, of trees blossoming with flowers. In the interior there is an extreme and almost feminine grace, as if here the strength of man would pay homage to the delicacy of woman. Enclosing the sacred spot is a screen of marble, carved into a kind of fret-work, and so pure and white that light shines through it as through alabaster, falling softly on that which is within. The Emperor, bereaved of his wife, lavished riches on her very dust, casting precious stones upon her tomb, as if he were placing a string of pearls around her neck. It is overrun with vines and flowers, cut in stone, and set with onyx and jasper and lapis lazuli, carnelians and turquoises, and chalcidies and sapphires.

The Taj is not a mosque, it is a tomb—a monument to the dead. And that gives it a tender interest, which spiritualizes the cold marble, and makes it more than a building—a poem and a dream.¹

DISPOSAL OF THE DEAD IN INDIA

Almost every conceivable form of disposing of the dead is practised in India. Generally speaking, the Hindus burn their dead, the Mohammedans inter their dead, while the Parsis expose their dead to be devoured by the vultures. The Khasi tribe in the Himalayas preserve in honey those who die in the rainy season, and cremate them when the weather clears. Some tribes in Bengal and Assam smoke the bodies of their priests and chiefs, and keep them in the house for a time before disposing of them. Some ascetic communities bury their dead in salt. In Tibet bodies are exposed to birds and beasts of prey.

When the Hindus gave up the custom of earth burial, and adopted the present plan of burning the corpses on pyres, they still retained traces of the more primitive method.

They prescribed burial for the bodies of persons dying in a state of taboo, like ascetics, lepers, women dying in childbirth, and young children. These last are in North India very generally buried under the threshold, possibly with the hope that they may be reincarnated in the family. So the primitive rite of providing a funeral feast, at which in its earliest form the corpse was consumed by the survivors by way of a sacrament, was modified into the modern Sráddha, at which food is presented to the dead and the sainted ancestors of the family. Among the existing jungle tribes the primitive practice still prevails.

The Berads of Poona simply leave their dead in the forest, "to become spirits." Others bury the corpse in a rude way in the jungle, and pile a few stones to mark the grave; others perform a farce of cremation, merely singeing the face and feet of the corpse and exposing it in the forest. But the rule is subject to constant modification. Thus, among the tribes of the Hindu-Kush cremation used to be the common form, the ashes being collected in rude wooden boxes or in earthen jars and buried. Now Mohammedan influence

¹G. W. Steevens, "In India" (1899).

¹H. M. Field, "From Egypt to Japan" (1877).

has taught them to bury the corpse, and the same change of practice has, of course, occurred among the lower Hindu tribes who have in recent times adopted Islám or Christianity.

The rule against cremation of the unmarried dead can be removed by a sort of post-mortem marriage. The natives of South Malabar marry a dead girl to a cocoa-palm or to a young Bráhmañ, and when this is done the death rites are performed in the normal way.

One of the leading motives of the death rite is to propitiate the ghost, which becomes offended at any ill-treatment of the corpse. Hence probably arose the custom of shelf or niche burial, in which, after the grave is dug, a chamber is excavated on one side, into which the corpse is placed so that it may not be crushed by the overlying soil. This is the rule among some of the ascetic classes and certain vagrant races of the Deccan. It has also been adopted by the Mussulmans. The transition from this to dome or vault burial can be easily traced.

Of another form of burial, that in a crouched or sitting position, India supplies many examples. It has been supposed to symbolize the pre-natal position in the womb, or more probably it is a survival of the binding of the corpse to prevent the ghost from "walking." In later times it seems to have been regarded as honorific, the chief being buried in the posture he occupies at the tribal fire, or the ascetic teacher as he addresses his pupils.

We find also various devices to prevent the ghost from "walking" after death. Such are the plan of binding the corpse on its way to the pyre; or removing it by a special door so that it may not be able to find its way home; or burying the dead face downwards, or filling the grave with thorns, all based upon the same idea. Others, again, bury the dead for a time, and when corruption has done its work, remove the bones to a tribal ossuary. Here the theory may be that the bones must be purified to form [a home for the ghost].¹

THE INDIAN SNAKE-CHARMER

The snake is regarded as sacred by many tribes in India, and snake worship is widely practised, especially in Kashmir and Malabar. The snake-charmer is a familiar figure in every Indian bazaar.

The greatest requisite of the snake-charmer is nerve, and this must be backed by a thorough knowledge of the serpents' habits. No hypnotism is employed, nor has music the slightest influence upon a snake's actions. The Hindu carries his poisonous reptiles in baskets, and, as he prepares to perform, squats down in front of these and begins a crooning refrain upon a reed. With a bamboo stick the performer removes the covers from the baskets. The cobras rear into view with dilated hoods, and the Hindu sways his body from side to side, with quickening strains upon his flute. The deadly cobras begin swinging to the music and the celebrated snake dance is on.

The actual conditions are these: The shrill notes of the reed appeal only to the imagination of the spectators. The cobra's natural attitude of defense is a graceful, rearing pose, with hood widely spread. From this position the snakes follow the swaying motions of the Hindu's body as they alter their aim in an endeavour to strike. The snake-charmer keeps just far enough away from his serpentine troop to render his bare legs safe from their fangs.

The wily fakir knows very well that if his snakes become accustomed to teasing they will "dance" with less energy. He consequently keeps a fresh supply of undisturbed specimens on hand.

Some of the more daring Hindu snake-charmers immunize themselves against the action of snake venom by taking a course of diluted injections, gradually increased in strength until the desired condition is attained. These men recklessly handle their snakes. The more clumsy fakir, who gives a less finished exhibition, is not taking any chances. He extracts the fangs from his poisonous snakes, so mutilating the animals' mouths in the process that they have no desire to bite.

The Hindu of this type ostentatiously handles a few harmless snakes, mostly small pythons.¹

TEA GARDENS OF INDIA

Tea demands an even and warm temperature, and grows best on sloping land with a system of natural drainage. It is owing to this that the lower slopes of the Himalayas offer so fine a field for its cultivation.

The plant is raised from seed, which in size and appearance resembles the hazel-nut. The seeds are sown in carefully-made beds in December and January, and require to be kept shaded at first. The planting out of the seedlings begins in April.

The site of a tea-garden should be well-drained and elevated, so that no water lodges about the roots of the plants. The slopes of low hills rising above the marshy valleys are the favourite places in Assam.

On the hill-summit may be seen the neat bungalow of the planter, lower down the huts of the coolies, while the tea-bushes are studded in rows with mathematical precision all round the sides.

The best soil is virgin forest, rich in vegetable mould. Care is taken that this fertile earth is not washed away by the tropical rains. The plants are about four feet apart, and for two years require weeding, and then pruning. The clippings are buried about the roots for manure. They come into bearing in the third year, and the yield increases till the tenth year.

The produce consists of the "flushes" or successive shoots of young leaves and buds: from five to seven flushes appear in the season from March to November.

The bushes are picked by women and children, who carry the baskets of leaves to the factory. The leaves are spread lightly on trays or mats for a night, to wither.

They are then "rolled" by coolies or by machinery, the object being to twist the leaves up tight that they may ferment. The fermenting is then arrested by drying, with the help of a fire, and sometimes of special machinery.

The tea is now sorted in sieves according to size and quality, from the Fine Flowery Pekoe to the common Broken Congou, and packed in the well-known lead-lined tea-chests.²

BENARES, THE SACRED CITY

From the Hindu point of view, Benares has flourished exceedingly under British rule. Its temples and shrines have multiplied, and the strong arm of the law now prevents the desecration and destruction to which they were subject in Mohammedan times. The railways have largely increased the numbers of pilgrims who throng the ghâts and holy places, and have thus added to the offerings which enrich the Brahmin priesthood.

British influence has undoubtedly made for order, decency, cleanliness, and general sanitation in the city. But its effect on the foundations of Hindu beliefs is not very evident in Benares, the Rome of Hinduism, unless the spirit of exclusiveness which has sprung up of late years should be regarded as a sign of the Brahmins' alarm at the increasing influence of Christianity. When Sherring wrote his "Sacred City of the Hindus," in the middle of the last century, he was allowed access to the most sacred places, which are now entirely closed to Europeans, even to the few who claim admission within the pale of the Hindu religion.

Benares has not ceased to be one of the great centres of the intellectual life of India, held in love and veneration by all Hindus; but the orthodox Brahmin looks askance at the efforts of Hindu propagandists, like Swami Vivekananda, who would strengthen resistance to outside influences by enlarging the borders of Hinduism.

¹W. Crooke, "Things Indian" (1906).

¹R. L. Ditmars, in the *National Geographic Magazine* (1911).

²Sir W. W. Hunter, "The Indian Empire" (1886).

The Hindu monasteries of Benares are still resorted to by students from all parts of India, for the education imparted by Brahmin Pandits, totally ignorant of modern research and regarding as worthless all knowledge not contained in Hindu sacred literature. On the other hand, there is the extraordinary spectacle of a college for Hindus, supported both by Indians and Europeans, with English men and women expounding Hindu philosophy and religion to Hindus, and seeking to re-state the ancient Vedic wisdom on a basis of modern science.

The strength of Hinduism has always lain, not in its exclusiveness, but in its extraordinary power of adaptation and assimilation. It is waste of energy for Christians to inveigh merely against Hindu superstition, idolatry, and caste. It is rather by sympathetic study of Hinduism in all its aspects that we shall learn to reach the hearts of the people, as our Teacher did on the shores of Galilee.¹

THE FREE WOMEN OF BURMA

While the Burmese man has, by force of the combined influences of Buddhism and climate, become either an indolent, harmless monk, or an easy-going amiable, pleasure-loving countryman, the Burmese woman, influenced in a far less degree by religion, untrammelled by convention, and gifted with freedom of action from her earliest youth, has developed into an individual of marked intelligence and strong character.

The women are the traders of the country; with them large contracts are often made by Government officials. They keep the stalls in the bazaars, and they aid their husbands in the sale of the paddy harvest. Denied education in the past, Burmese girls are now beginning to avail themselves eagerly of the Government schools for women established by the English.

MARRIAGE IN BURMA.—Marriage is in Burma an absolutely free contract, in which the position, the obligations, and the rights of the two contracting parties are equal. This is particularly shown in the disposition of property.

All property belonging to a woman before marriage belongs to her absolutely, but all bequests made at the time of marriage, or profits arising from the investment of property of either husband or wife, or the earnings made by business or labour, constitute "joint property." Neither husband nor wife has the absolute control of the joint property, which cannot be dealt with nor alienated without the consent of the other. Even if the wife earn nothing she is considered to fulfil her part of the partnership by bearing the children and attending to the house, and she still keeps her control over the joint property.

Marriages in Burma are love matches, and are contracted while the parties are often mere boy and girl. If the husband is unable to provide a home for his wife, the parents of either the bride or bridegroom find room for the couple. The Burmese are kindly and affectionate in their domestic life, and children are adored, so that marriage, though only a civil contract and easily broken, is perhaps happier than in countries where the wife is absolutely in the power of the husband. Should, however, a married couple desire to separate, divorce is easily obtained. Each party then takes his or her separate property, and the joint property is equally divided. The father takes the male children, and the mother the female. Each party is then free to marry again, and no disgrace nor scandal has been incurred.

But though absolutely free and independent, the women of Burma do not resign their privilege to charm. To look pretty, to be gay, attractive and debonaire is their avowed aim, and I know few things in humanity more charming than a group of Burmese girls, clad in rainbow-tinted tameins and white jackets, with sweet-scented flowers stuck jauntily in the heavy coils of their black tresses, laughing, chatting,

and even smoking big white cheroots as they mount the pagoda steps, to pay their offering of prayer and praise to the Great Teacher of pity, unselfishness, and purity of life.¹

ELEPHANTS AT WORK IN BURMA

The elephant is indispensable to lumbermen in Burma, and to see these sagacious animals working with almost human intelligence is an instructive and unforgettable experience. On each of my four visits to Burma I never came away without going to the timber yards on the outskirts of Rangoon to see the elephants "a-piling teak." No labour unionist is more punctilious than the elephant in regard to hours; for when the whistle blows for work to cease, no amount of coaxing or coercion can make the animal do another stroke—he simply quits.

It is a novel and interesting sight to watch elephants working in the lumber yards, for they do it all. A Burman sits on the animal's neck with a sharp steel prod in his hand, and directs the beast by touching him on different spots on his head and by the use of quaint expressions which are understood by the man and the elephant only. Elephants handle all the logs and the lumber as intelligently and with much greater ease and rapidity than could be done by a gang of men. MacGregor & Co., one of the largest lumbering firms, employ about two hundred elephants in the forests, at their saw-mills and in their lumber yards at Rangoon. Strangers always go down to see the elephants at work. It is the most interesting sight in Burma.

When the cross timbers that hold the rafts together are cut the elephants go down to the waterside one by one, separate logs weighing two tons or more from the rest of the raft by the use of their trunks and tusks, and carry or drag them up into the yard and place them upon piles at the entrance to the saw-mill. Sometimes they haul the logs with chains attached to a harness adjusted to their necks and breasts. Sometimes they push them with their trunks and feet. The ease with which they handle the enormous logs is remarkable, and the intelligence they show is even more so. The native sitting on the animal's neck has only to whisper in its ear what is wanted, and the job is done with neatness and dispatch.²

CHINESE REVERSALS OF WESTERN CUSTOMS

Many of the customs of the Orient are so contrary to our own that they are a source of great interest to the observant traveller. Dr. K. J. Junor cites a number of such instances in his illuminating article on China in the *National Geographic Magazine* (1910).

A Chinaman mounts a horse from the right side, and with the right foot, and holds the reins in the right hand—all because he can more easily and safely maintain his dignity, in the doing of these things, by using the stronger hand. When mounted he rides slowly and sedately; never more than at a walk. He stands his horse in the stable with his face outward, because it is more dignified to approach a beast to his face.

The guest of honour is placed on the left in China, because in this position alone can the host gracefully and in a dignified manner perform toward him those ceremonial offices of propriety required on such occasions. In that position he can pick out with his chop-sticks any little tidbit, and either place it on the table before his guest or place it directly in his guest's mouth. If his guest were on his right side this could not be done.

At a wedding the groom is the centre of interest. The bride is noticed only as a matter of curiosity. Her feet are of the first interest, because a woman's beauty, to the Chinaman, is in her feet, not in her face.

¹E. B. Havell, "Benares, The Sacred City" (1915).

¹(Mrs.) Ernest Hart, in "India" (British Empire Series, 1899).

²W. E. Curtis, "Egypt, Burma, and British Malaysia (1905).

The Chinaman, when puzzled, scratches his foot instead of his head. Many other instances of reversals of western customs can be given, the reasons for which, however, are not so easily discoverable. They are due to custom and environment. Their beds have no mattresses and their furniture no upholstery, but the carving and inlaying are beautiful. Their pillows are hard blocks of wood or little boxes in which the traveller carries his toilet articles and money. They have no stoves, and, in many sections, to keep warm at night the beds are the tops of brick ovens. Where there are no ovens they are so solid with clothes they can hardly move. They carry in the hand little stoves in the shape of baskets containing charcoal.

Women wear pants, while the men wear long gowns down to their feet. The vest is worn outside the coat, and the soles of their shoes are white and not black.

They pay their doctors to keep them well, and punish them, if they can, if they get worse or die.

Fruit left to ripen is considered unwholesome as being too near to decay, and yet they eat things a thousand times more dangerous. They eat the beaks of birds, the fins and brains of fishes, the entrails of animals, and consider that the claws of tigers, boiled to a jelly, impart strength. The flesh of snakes gives cunning.

Eggs are appreciated according to their age. Those 100 years old, black with age from being preserved in ashes, are great dainties but not uncommon.

Pawnshops are in rich, not in poor neighbourhoods, and are only patronized by the well-to-do.

In mathematics their decimal fractions are our vulgar fractions and vice versa. Their denominator is our numerator, etc.

They row a boat standing up, facing the bow, and haul the boat on shore by the stern instead of the bow. They tow by the masthead instead of the bow.

The superior man will play battledore and shuttlecock, while old men stand sedately by and look on.

The woman in sewing pushes the needle from her, while the carpenter draws his plane and saw toward him in working, the teeth of their saw being set in the reverse order of ours.

Vegetables, eggs, wood, etc., are sold by weight. In this they are far in advance of our absurd and unjust custom.

Men only have the honour of a funeral granted to them; women, having no souls, are not of sufficient importance. Their mourning colour is white. Mourners at a funeral are all hired.

ATTITUDE TOWARD FOREIGNERS.—To the Chinaman the foreigner is a boor and a barbarian. It seems a hopeless task to teach him politeness. He looks upon us as creatures of yesterday. To him China is the Middle Kingdom—not only the centre, but the major part of the earth.

The Chinaman wonders why the foreigner leaves his country at all. Is it too small for him to make his living, or has he come to observe the superior people? If so, he is to be commended. But, alas! what a boor he is. What tight and uncomfortable clothes he wears, like the skins of beasts. How vulgarly he eats, and especially what quantities of flesh he devours. No wonder he is blood-thirsty and loves to fight—he has taken on the disposition of the beast. During the Boxer trouble, in the travelling Punch and Judy shows used to stir the people, all foreigners were represented on the stage by the figure of a pig. Although fully convinced of our cleverness, he yet looks upon us as we do upon a trick dog. He is finally forced to the conclusion that he must adopt these methods which have made the foreigners so powerful.

ANCESTRAL WORSHIP.—The underlying reason for the dislike of foreigners must be sought in the Chinese ancestral worship and fear of devils.

They believe that every man has three spirits. These three spirits, in the case of Chinese who are properly cared for at death, have each a distinct place of residence. A fourth order of spirits also exists, consisting of the spirits

of the uncared for and unburied dead. These latter are wandering spirits, ghosts, or devils.

The first of these spirits, when a man dies, goes into the spirit world. Once a year all such spirits are liberated for a month to revisit their old homes. During this month tables covered with viands of every description are placed on the street before the door. It is hoped that these spirits, seeing this provision, may be induced to bring prosperity to the family. They believe these spirits partake of the viands.

The second spirit does not go into the spirit world, but takes up his residence in the bones. When the time for burial arrives, which may be months after death, a live fowl is carried before the coffin to convey the spirit to the grave, and paper representing money is scattered all along the road "to buy the way" from the devils or spirits of the unburied dead, who are everywhere. At the end of five years the body is taken up, the bones cleaned, and replaced in an earthen vessel. This is the proper burial.

Every year the relatives go to the grave to offer provisions and pay reverence to this "grave spirit." This is why all Chinamen desire to be buried by their relatives and in China, else their spirits may become wandering devils. For the same reason they make every endeavour to have the bones of their relations transported to China if they die abroad. Prosperity and health are only secured to the survivors by the proper observance of these ceremonial offices.

To the third order of spirits belongs particularly ancestral worship. By elaborate ceremonies the third spirit is induced to enter what is called an ancestral tablet prepared by the family on the approach of death. This tablet is the sacred symbol of the ancient religion of China, which Confucius found existing in his day, 600 years before the time of Christ. This tablet, containing the spirit of the father, is set upon the principal table in the house or is sent to a Confucian temple. In either case all the family pay their devotions before it. This is ancestral worship or filial piety. The Chinese are also firm believers in the transmigration of souls.

The fourth order are the spirits of the unburied dead. They are those which have no friends, no graves, no tablet, and which have never been conducted to the place of spirits. They are an innumerable host, wandering spirits, ghosts or devils. They are everywhere—in caves, in mountains, and in valleys. They wander through the country roads and in the city streets. They are in stones and trees and houses. They pass through the air only a few feet above the ground. For this reason houses in China are only permitted to be one or two stories high. Pagoda temples and pawnshops are exceptions by special permission and payment. Here is found largely the objection to railways, telegraphs, and the high houses of foreigners. These things bring actual terror to the Chinese, for they interfere with the flight of devils. Calamities of every kind hang over the neighbourhood through these offended devils.

Spirits cannot turn a corner safely; hence all public highways and waterways and city streets are never built straight, but twist and turn. It is hoped by this arrangement that the devils may get confused and lost. For this reason doors and windows are not placed opposite each other, and outside windows are rare, to prevent devils entering. As many intricacies as possible are introduced. The very straightness, therefore, of railways, telegraph lines and all roads built by foreigners is a menace.

In the above conditions lies one of the great secret causes of hatred toward foreigners; for, though the Chinese may actually build these roads and houses for the sake of the money they earn, yet they do so in fear, unless they can find a satisfactory way of counteracting their malign influence. The hatred, however, always abides.

THE WHIP HAND IN MANCHURIA

When the war with Russia ended, Japan succeeded Russia in the control of what is now the South Manchurian Railway, running from Dairen (formerly Dalny) to Changchun, 438 miles, through the very heart of the country; and

she also obtained from China the right "to maintain and work the military line constructed between Antung and Mukden and"—as if of secondary importance—"to improve the said line so as to make it fit for the conveyance of commercial and industrial goods of all nations." The stipulation with regard to the South Manchurian Railway was that China should have the right to buy it back in 1938, and with regard to the Antung-Mukden line, in 1932, by paying the total cost—"all capital and all moneys owed on account of the line and interest." And just here Japan is playing a wily game.

That Japan (in the event of no other method of getting control of Manchuria appearing) hopes to make the railroads too expensive for the hard-pressed Peking government to buy back is self-evident. She is looking far ahead, as those interested in the continuance of the Open Door policy must also look far ahead. The real Open Door question is not a matter of the last four or five years or of the next four or five years, but whether after a comparatively short time the Door is to be permanently closed as in Korea. If it be said that Japan is only human in laying many plans to gain so rich an empire, let it also be said that other nations are only human if they wish to protect their own interests. . . .

In Japan proper the government-owned railway stations are severe and inexpensive structures in which not one yen is wasted for display and but little for convenience. . . . But when it comes to the South Manchurian Railway, also under the control of the Japanese government (five sixths of the investment held by the government and one sixth by individual Japanese), one finds an entirely different policy in force. Handsome stations, built to accommodate traffic for fifty years to come, have been erected. In Darien, "virtually the property of the railway company," the system has built a magnificent modern city—street railways, waterworks, electric light plants, macadamized roads, and beautiful public parks. More than this, the railway company, not content with the best of equipment for every phase of legitimate railway work, including handsome stations and railway offices, such as Japan proper never sees, has also erected hotels which, for the Orient, may well be styled sumptuous, in five leading cities of Manchuria. Comparatively few travellers go to Mukden, and yet the hotel which the South Manchurian Railway has erected there, for example, is perhaps not excelled in point of furnishing and equipment anywhere in the Far East.

In buying back the railroads, therefore, China will be expected not only to pay for the railways themselves but for all the irrelevant enterprises—hotels, parks, cities—in which the railway companies have embarked; for lines "improved" beyond recognition, and for lines built not even with a view to ultimate profit, but for their strategic importance to a rival and possibly antagonist nation! As an Englishman said to me: "It's much the same as if I, a poor man, should rent you a \$1,000 house, agreeing to stand the expense of some improvements when taking it back, and you should spend \$10,000 in improving my \$1,000 house—and largely to suit your own peculiar business and purposes." . . .

That Japan, then, holds the whip hand in Manchuria, and expects to continue to hold it, is very clear. With China as yet too weak to protect herself, Japan is virtually master of the situation. . . .

The truth is that the ink was hardly dry on the early treaties before the discriminations began. The military railroads, which Japan was in honour bound to all the world to use only for war purposes, were used for transporting Japanese goods before the military restrictions with regard to the admission of other foreign goods were removed. The Chinese merchant and his patrons were famishing for cotton "piece goods" and other manufactured products, and the Japanese goods coming over were quickly taken up and a market for these particular "chops" or "trade-marks" (the Chinaman relies largely on the chop) was established. By the time European and American goods came back, their market in many cases had already been taken away. In some cases, too, their trade-mark rights had been virtually

ruined by the closeness of Japanese imitation. Even on my recent tour, among consuls of three nations, at Manchurian points, I did not find one who did not mention some recent case of trade-mark infringement.

Then came the period of freight discriminations and rebates, when the Japanese (principally the Mitsui Bussan Kaisha, the one great octopus of Japanese business and commerce) secured freight rates that practically stifled foreign business competitors. . . .

Meanwhile, too, the relations between the Japanese government and the Mitsui Bussan Kaisha are so close that competitors are virtually in the plight of having to ship goods over a line owned by a rival—without any higher tribunal to guarantee equality of treatment. . . .

More flagrant still is another violation of international treaty rights. Under Chinese regulations foreign merchants are not allowed to do business in the Manchurian interior away from the twenty-four open ports, but it has been shown that several thousand Japanese are now stationed within the prohibited area, and Japan's reply to the Chinese Viceroy's protest is that he should have objected sooner and that it is now too late. Meanwhile, many Chinese merchants both in the interior and along the South Manchurian Railway, themselves paying the regular *likin* and consumption taxes, are finding themselves unable to compete with the Japanese, who refuse to pay these taxes. Thus Japan is gradually rooting out the natives who stand in her way, and, day by day, tightening her grip on the country. She is advancing step by step as she did in Korea.

On the whole, the Mikado's subjects seem already to count themselves virtual masters of the country. Inside their railway areas and concessions they have their own government; in the majority of cases while in Manchuria I found it more convenient to use the Japanese telegraph or the Japanese postal system than the Chinese; and where I stopped at the little towns along the line it was a Japanese officer who came to inquire my name and nationality. . . .

Those who apologize for Japanese aggressiveness in Manchuria, those who excuse or sympathize with her evident purpose to make Manchuria walk the way of Korea, have but one argument for their position—the pitiably abused and threadbare plea that the Japanese have won the country by the blood they shed in the war with Russia. The best answer to this is also a quotation from the distinguished and witty Chinaman just mentioned. "The Japanese," said he, "claimed they were fighting Russia because she was preparing to rob China of Manchuria; now they themselves out-Russia Russia. It is much as if I should knock a man down, saying, 'That man was about to take your watch,' and then take the watch myself!"

The aptness of the simile is evident. My sympathy, and the sympathy of every other American acquaintance of mine as far as I can now recall, was with Japan in her struggle because of our hot indignation over Russian aggressiveness. But if Japan had said, "I am fighting to put Russia out only that I may myself develop every identical policy of aggrandizement that she has inaugurated," it is very easy to see with what different feelings we should have regarded the conflict.

Moreover, Japan's legitimate fruits of victory do not extend to the control or possession of Manchuria. As one of the ablest Englishmen met on my tour in the Far East pointed out, Japan's purposes in inaugurating the war were four: (1) to get a preponderating influence in Korea; (2) to get the control of the Tsushima Straits, which a preponderating influence in Korea would give her; (3) to drive Russia from her ever-menacing position at Port Arthur; and (4) to arrest (as she alleged) the increasing influence and power of Russia in Manchuria.

All these things she has gained. Furthermore, she now has actual possession of Korea. The menace of a great Russian navy has been swept away. Again, she has become (with the consent of England) the commanding naval power in the eastern Pacific; and she has gained an influence in South Manchuria at least equal to that which Russia had previous to the war.¹

¹Clarence Poe, "Where Half the World is Waking Up" (1911).

INDUSTRIAL JAPAN

There are two distinct and essentially different kinds of industries in Japan; namely, those which are of native or Chinese origin and which are still carried on to a very large extent in Japanese style, and those which have been introduced from Western countries and are carried on upon the factory system. With the former of these there is no competition in the markets of the world, and they must win their way through their own inherent merits.

The production of the ceramic and cloisonné ware of the Japanese, of their silk fabrics, their pictures and their carvings, and in short, their art productions of all kinds, must be carried on in what is essentially the domestic system of industry if they are to retain their excellence. Each workman is an artist to a greater or less degree, and he revolts against being converted into a machine or the mere attendant of a machine. He requires work which, in itself, gives him pleasure and on which he can imprint his own personality. There is indeed a danger, as I have already pointed out, that the artistic capabilities of the Japanese may be crushed out by the use of machinery, and that they will be brought face to face with all the problems, industrial, physical, and social, which lie heavily on the hearts of all thoughtful men who have observed the conditions of modern industrial nations. While all that is admitted, it must also be recognized that mechanical and industrial development in the production of goods to satisfy many of the ordinary wants of life is a stage in the necessary evolution through which nations must pass before they arrive at a state of equilibrium in which they will endeavour to live and not simply struggle for the means of life.

The industries in Japan which will have a direct effect on her foreign policy are those conducted on the factory system and the products of which come into direct competition with those of other countries. The one which meantime appeals most to British manufacturers is that of cotton, which, as we have seen, has made great strides in Japan during recent years. Not only are the products of Japanese mills able to supply the greater part of the wants of the people of the country, but the surplus now forms a very important item in the trade with Korea and China.

Although the development of Japanese industries has in some cases increased the competition with British and other foreign goods, it has at the same time given a great impetus to the manufacture of others, especially the machinery required in industries and in all the accessories of modern Western life. A glance at the list of imports shows that the Japanese are now users to a greater or less extent of almost all classes of foreign goods; so that an increased demand for these has arisen, which counterbalances the loss in special departments in which they now produce not only for themselves but also for their neighbours in the Far East.

EXPANSION IN THE ORIENT.—The direct economic influence of Japanese industrial development on the countries in the Far East will, no doubt, be to disturb the conditions which have existed for generations; but by itself it is not likely to be very great for a considerable time, for, after all, the best market will be the home market; still as a factor in the evolution which is going on it cannot be neglected. Japanese products are finding their way into all the countries in the Far East, are gradually changing the social customs of the people and leading them to the use of Western appliances and methods, and thus again affecting economic conditions in other departments. But probably most important of all is the indirect and the educational influence of the Japanese in China and Korea; for this is certain to tell before long on large numbers of the people, who will be stirred up to attempt manufactures on their own account. If the Chinese were undertaking modern industries with the same energy as the Japanese, they might become the greatest manufacturing nation in the world, but they are slow to move, not because they are either stupid or lazy, but because they have a philosophy of life which keeps them out

of the competitive struggle. It will be interesting to note how far they are drawn into that struggle, or whether their philosophy will be sufficient to enable them to take advantage of Western methods without allowing these to dominate social and even political conditions.¹

JAPANESE LABOUR AND COMPETITION.—Japanese industries are women's industries—there being seven times as large a proportion of women to men as in European and American manufacturing. These women workers are mostly from the country. Their purpose is only to work two or three years before getting married and thousands of them, called home to marry the husbands their parents have selected, or else giving way physically under strain, quit work before their contracts expire. There are almost no factory labourers who look on the work as a life business.

Not only in the mills, but in numerous other lines of work, have I seen illustrations of the primitive stage of Japan's industrial efficiency. As a concrete illustration I wish I might pass to each reader the box of Kobe-made matches on the table before me (for match-making of this sort is an important industry here, as well as the sort conducted through matrimonial middlemen without waiting for the aid or consent of either of the parties involved). I have never in my life seen such a box of matches in America. Not in a hundred boxes at home would you find so many splinters without heads, so many defective matches. And in turning out the boxes themselves, I am told that it takes five or six hands to equal the product of one skilled foreign labourer. "It takes two or three Japanese servants to do the work of one white servant" is the general verdict of housekeepers, while it has also been brought to my attention that in shops two or three clerks are required to do the work of one at home. A Japanese newspaper man (his paper is printed in English) tells me that linotype compositors set only half as many ems per hour as in America. In short, the general verdict as I have found it is indicated by what I have written, and the most enthusiastic advocate of Japanese cheap labour, the captain of the steamer on which I came from America, rather spoiled his enthusiasm for getting his ship coaled at Nagasaki for 7½ cents a ton, by acknowledging that if it rained he should have to keep his ship waiting a day to get sufficient hands.

I am convinced that the people as a whole are more than ordinarily averse to steady, hard, uninterrupted toil. "We have a streak of the Malay in us," as a Japanese professor said to me, "and we like to idle now and then. The truth is our people are not workers; they are artists, and artists must not be hurried." Certainly in the hurried production of the factory the Japanese artistic taste seems to break down almost beyond redemption, and the people seem unable to carry their habits of neatness and carefulness into the new environment of European machinery. "Take the Tokyo street cars," said an ex-cabinet officer to me; "the wheels are seldom or never cleaned or oiled, and are half eaten by rust." The railroads are but poorly kept up; the telephones exhaust your patience; while in the case of telegraphing, your exasperation is likely to lose itself in amazed amusement. A few days ago, for example, I sent a telegram from Osaka to Kobe, took my rickshaw across town, waited for a slow train to start, and then reached Kobe and the street destination of my message before it did.

In considering the failure of Japanese labour to bring forth a satisfactory output, however, one thing more should be said, and that is that we should not put the blame wholly on the wage-earner. Not a small proportion of the responsibility lies at the door of inexpert managers. The family system of production has not only been the rule for generations with that minority of the people not engaged in farming, but it is still the dominant type of Japanese industry, and it will take time even to provide opportunities for training a sufficient corps of superintendents in the larger lines of production.

¹Henry Dyer, "Dai Nippon" (1904).

In further illustration of my argument that cheap labour is not proving so abnormally profitable, I may question whether Japanese factories have paid as good dividends, in proportion to prevailing rates of interest on money, as factories in England and America. Baron Shibusawa, the dean of Japanese financiers and one of the pioneers in cotton manufacturing, is my authority for the statement that 12 per cent would be a rather high estimate of the average rate of dividend, while figures furnished by the Department of Finance show that for ten years the average rate of interest on loans has been 11.25 per cent.

The fact that Western ideas as to Japan's recent industrial advance have been greatly exaggerated may also be demonstrated just here. While the latest government figures show that in twelve years the number of female factory operatives increased from 261,218 to 400,925 and male factory operatives from 173,614 to 248,251, it is plain that a manufacturing population of 649,000 in a country of 50,000,000 souls is small, and the actual progress has not been so great as the relative figures would indicate. Moreover, many so-called "factories" employ less than ten persons and would not be called factories at all in England or America. The absence of iron deposits is a great handicap, the one steel foundry being operated by the government at a heavy loss, and in cotton manufacturing, where "cheap labour" is supposed to be most advantageous, no very remarkable advance has been made in the last decade. From 1899 to 1909 English manufacturers so increased their trade that in the latter year they imported \$222 worth of raw cotton for every \$100 worth imported ten years before, while Japan in 1909 imported only \$177 worth for each \$100 worth a decade previous—though of course she made this cotton into higher grade products.

It must also be remembered that the wages of labour in Japan are steadily increasing and will continue to increase. More significant than the fact of the low cost per day, to which I have already given attention, is the fact that these wages represent an average increase per trade of 40 per cent above the wages eight years previous.

Of no small significance in any study of Japanese industry must also be the fact that there are in Japan proper a full half million fewer women than men (1910 figures: men, 25,639,581; women, 25,112,338) a condition the reverse of that obtaining in almost every other country. Now the young Japanese are a very home-loving folk, and even if they were not, almost all Shinto parents, realizing the paramount importance of having descendants to worship their spirits, favour and arrange early marriages for their sons. And what with this competition for wives, the undiminished demand for female servants, and a half million fewer women than men to draw from, the outlook for any great expansion of manufacturing based on woman labour is not very bright.

Yet another reason why wages must continue to advance is the steady increase in cost of living, due partly to the higher standard developed through education and contact with Western civilization, but perhaps even more largely to the fearful burden of taxation under which the people are staggering. A usual estimate of the tax rate is 30 per cent of one's income.

It is my opinion that the Japanese will steadily develop industrial efficiency, but that in the future no more than in the present will Japan menace European and American industry (unless she is permitted to take unfair advantages in Manchuria, etc.), for just in proportion as efficiency increases, just in the same proportion, broadly speaking, wages and standards of living will advance. The three—efficiency, wages, cost of living—seem destined to go hand in hand, and this has certainly been the experience thus far. And whatever loss we may suffer by reason of Japan gradually supplanting us in certain cruder forms of production should be abundantly compensated for in the better market for our own higher-grade goods that we shall find among a people of increasing wealth and steadily advancing standards of living.¹

SYNOPSIS OF ASIA

(See Maps, pp. 57-70)

EXTENT.—Asia is the largest as well as the most elevated of the continents; it covers the greater part of the Eastern Hemisphere north of the equator. Its area is about 17,040,000 square miles, a third part of the land surface of the globe, and nearly five times that of Europe. The distance from the Suez Canal to Bering Strait is 6,700 miles, more than a quarter of the circumference of the earth.

Asia is bounded on the west by Europe, on the south by the Indian Ocean, on the east by the Pacific, and on the north by the Arctic. The Suez Canal across the Isthmus of Suez separates Asia from Africa.

POPULATION.—About 850,000,000.

PENINSULAS.—On the south: Arabia, India, and Farther India. On the east: Tchuktchis, Kamchatka, and Korea or Chosen. On the west: Asia Minor. On the north: Taimyr.

CAPIES.—On the south: *Ras el Hadd*, the most easterly point of Arabia; *Comorin*, the most southerly point of India; *Negrain*, west of Lower Burma; *Romania*, the most southerly point of the Malay Peninsula; *Cambodia*, south of Cochin China. On the east: *East Cape*, the most easterly point of Tchuktchis Peninsula and of the continent of Asia; *Lopatka*, the most southerly point of Kamchatka Peninsula. On the west: *Baba*, on the west of Asia Minor. On the north: *Chelyuskin*, extreme north point of Asia.

SEAS, BAYS, GULFS.—On the south: *China Sea*, east and south of China; *Gulf of Siam*, south of Siam; *Bay of Bengal*, between India and Burma; *Arabian Sea*, between India and Arabia; *Persian Gulf*, between Arabia and Persia. On the east: *Bering Sea*, between Aleutian Islands and Bering Strait; *Sea of Okhotsk*, between Kamchatka and eastern Siberia; *Sea of Japan*, between Japan and Korea (Chosen); *Yellow Sea*, between China and Korea; *Gulf of Chihli* or *Pechili*, northwest part of Yellow Sea. On the west: *Mediterranean Sea*, west of Asia Minor; *Red Sea*, between Arabia and Africa. On the north: *Gulf of Ob*, northwest of Siberia.

STRAITS.—On the south: *Palk Strait*, between Ceylon and India; *Strait of Malacca*, between Malay Peninsula and Sumatra; *Formosa Strait*, between China and Formosa. On the east: *Bering Strait*, between Asia and America; *Korea Strait*, joining Sea of Japan to Yellow Sea; *Kurile Strait*, between Kamchatka and Kurile Islands; *Perouse Strait*, between Sakhalin and Yezo; *Tsugaru Strait*, between Yezo and Honshu islands, Japan. On the west: *Strait of Bab el Mandeb*, uniting Red Sea and Indian Ocean; *Strait of Ormuz*, between Persian Gulf and Gulf of Oman; *Dardanelles*, between Europe and Asia Minor.

ISLANDS.—The *Laccadives* and *Maldives* in the Arabian Sea; *Ceylon* in the Indian Ocean; the *Andamans* and *Nicobars* in the Bay of Bengal; *Penang*, *Singapore*, and other islands of the *Malay Archipelago*; *Hongkong*; *Formosa* (or *Taiwan*); *Hainan*; the *Japanese Islands*; *Sakhalin*; *Kurile Islands*; *Aleutian Islands*, south of Behring Sea. The *Philippine Islands*, belonging to the United States, are geographically a part of Asia. In the Arctic Ocean are the island groups of *New Siberia* and *Bear Islands*. In the Mediterranean, *Cyprus*, *Rhodes*, and other Asiatic islands of the Archipelago.

BUILD.—Asia is a continent of the most striking contrasts. It comprises the greatest heights and the deepest depressions on the globe; the most elevated plateaus, and the lowest plains. The "centre of gravity of the continent" is to be found in the mountain-knot formed by the junction of the Himalayas and the Mustagh Range. From this central knot radiate, like the spokes of a wheel, three vast table-lands (the *Highland of Pamir*, called "the Roof of the World," the *Plateau of Tibet*, and the *Plateau of Iran*) and three vast plains (the *Lowland of Turan*, the *Tarim Depression*, and the *Indo-Gangetic Valley*).

The coast-line of Asia is about 51,000 miles in length. Yet in spite of the magnitude of its peninsulas, Asia has comparatively a shorter coast-line than all the other continents with the exception of Africa.

MOUNTAINS.—The mountains of Asia run mainly from southwest to northeast. They are remarkable for the number of their parallel ranges. From the central knot formed by the Himalayas and the Mustagh four ranges run to the east; one to the west; and one to the south. The four ranges to the east are the *Himalayas*—literally, "Abode of Snow" (highest summits: *Mt. Everest*, 29,002 feet; *Kanchanjanga*, 28,146 feet; *Dhaulagiri*, 26,826 feet; and *Gaurisankar*, 23,447 feet); the *Mustagh* or *Karakoram* (highest summits: *Godwin-Austen*, 28,250 feet; *Dapsang*, 28,103 feet); the *Kuenlun*, a series of mountain ranges along the northern edge of the great Tibetan plateau; and the *Tien Shan*, separating Russian Turkestan from Chinese Turkestan (highest summit: *Khan Tengri*, 24,010 feet).

The range to the west is the *Hindu Kush* in Afghanistan (highest summit: *Tirach Mir*, 25,400 feet). The range to the south is the *Sulaiman Mountains*, between Afghanistan and the Punjab (highest summits: *Kaisargarh*, 11,316 feet; *Takht-i-Sulaiman*, i. e., "throne of Solomon," 11,070 feet).

Other important ranges are the *Altai Mountains*, between West Mongolia and Zungaria and in South Tomsk (highest summits, 11,000-12,000 feet); the *Great Khingan* and the *Little Khingan Mountains*, on the eastern edge of the Desert of Gobi; the *Armenian Mountains* (highest summit: *Ararat*, with two peaks, the highest about 17,000 feet—on which the Ark is said to have rested after the Deluge); the *Taurus Mountains*, in the southeast of Asia Minor; the *Lebanon Mountains* in Syria (highest summit: *Dhor el Khodib*, 10,060 feet); and the *Western and Eastern Ghats*, bordering the coasts of the Indian Peninsula.

PLAINS.—The *Chinese Lowland*, on the Pacific; the *Lowland of Farther India*, well-watered but in some parts marshy; the *Plain of Hindustan*, watered by the Ganges, the Brahmaputra, and the Indus; the *Syro-Arabian Lowland*, including the valley of the Tigris and Euphrates; the *Plain of Turkestan* or *Turanian Lowland*, the deep depression in which the Caspian, the Aral Sea, and Lake Balkash lie, most of which is desert; the *Siberian Plain*; and the *Plain of Pegu* in Lower Burma.

DESERTS.—Asia is crossed by a belt of deserts from the southwest to the northeast. The chief divisions of the belt are: the *Syrian Desert*, east of the valley of the Jordan; the *Desert of Mesopotamia*, between the Euphrates

¹Clarence Poe, "Where Half the World Is Waking Up" (1911).

and the Tigris; the *Great Arabian Desert*, in the south of Arabia; the *Great Salt Steppe*, in Persia; the *Deserts of Makran and Seistan*, in the southwest of Afghanistan; the *Thar*, in northern India; and the *Desert of Gobi or Shamo*, in central Asia.

RIVERS.—The rivers of Asia are the largest in the Old World. The longer streams rise in the great central plateau, and flow north, east, and south to the sea. There is also a vast continental basin, no water from which ever reaches the sea. There are two remarkable features of the river system: (1) the rivers flow in all directions from the core of the continent; and (2) the presence of twin streams, the chief of which are the Tigris and Euphrates; the Ob and Irtysh; the Ganges and Brahmaputra; the Amu Darya and the Syr-Darya; the Hwangho and the Yangtze.

CHIEF RIVERS OF ASIA

RIVER	LENGTH (miles)	COUNTRY	MOUTH
Yangtze	3,000	China	Pacific
Lena	2,860	Siberia	Arctic
Amur	2,700	China	Sakhalin Gulf
Mekong	2,600	Indo-China	China Sea
Yenisei	2,500	Mongolia & Siberia	Arctic
Hwangho or Yellow River	2,300	China	Gulf of Chihli
Irtysh	2,300	Siberia	River Ob
Ob	2,260	Siberia	Gulf of Ob
Indus	2,000	India	Arabian Sea
Brahmaputra	1,800	India	Bay of Bengal
Salween	1,750	Burma	Martahan Gulf
Euphrates	1,600	Armenia & Mesopotamia	Persian Gulf
Ganges	1,557	India	Bay of Bengal
Amu Darya	1,450	Turkestan	Aral Sea
Syr-Darya	1,300	Russian Turkestan	Aral Sea
Olenek	1,200	Siberia	Arctic
Kolyma	1,110	Siberia	Arctic
Si or Si-kiang, i. e. "West River"	1,000	China	China Sea
Godavari	900	India	Bay of Bengal

LAKES.—*Aral Sea*, in Turkestan; *Baikal* (largest fresh-water lake in the Old World) and *Balkash*, in Siberia; *Zaisan*, in Asiatic Russia; *Tengri Nor*, in Tibet; *Tungting* and *Poyang*, in China; *Urmia*, in Persia; *Van*, in Armenia; *Dead Sea* and *Sea of Galilee*, in Syria.

CLIMATE.—Asia has every variety of climate; for it not only stretches from the equator to within 12° of the North Pole, but it rises from 85 feet below the level of the sea to 29,002 feet above it. The tempering influence of the ocean is less and the range of temperature is greater than in corresponding latitudes of Europe.

The rainfall of the eastern Himalayas is the greatest in the world, amounting in the Khasi Hills in Assam to 610 inches (50 feet 10 inches) annually. The following are averages of annual rainfall: Singapore, 97 inches; Hongkong, 79 inches; Java, 150 inches; Cape Comorin, 28 inches; Bombay, 162 inches; Coromandel Coast of India, 24 inches; Ganges Valley, 55 inches; Baku, on the Caspian, 13 inches; Vladivostok, 35 inches. A comparatively rainless belt extends through Arabia, South Persia, Turkestan, and the Desert of Gobi. See *Climate Map of Asia*, pp. 58, 59.

VEGETABLE PRODUCTS.—Rice is the staple industry on all the well-watered plains of southern Asia. Great quantities of wheat are grown in northwest India; and flax, hemp, and jute, both for their fibre and oil seeds, in every favourable district of India.

The tea tree flourishes in Assam, Ceylon, China, and Japan; the coffee shrub in India, Ceylon, Arabia, etc.; cinnamon in Ceylon and the Malay Peninsula; the mulberry tree in Asia Minor, India, Persia, China, etc.; the olive, date, and pineapple in the dry countries of the southwest; ginseng in Manchuria; the camphor tree in China and Japan. Poppy fields, yielding opium, abound in Asia Minor, Persia, India, and China. Indigo fields are common in India and Japan.

Teak, oak, and many other varieties of forest trees, yielding ornamental timber for veneering furniture, abound in India and Farther India. The banyan, mango, deodar, coco, areca, and many other palms are common in the southeast.

Trees producing india-rubber and gutta-percha, and also those from which various gums are obtained, abound in southern and eastern Asia. The vine comes to no perfection in monsoon countries, because of the great excess of summer rains.

Asia is also the home of the sugar-cane and cotton. In the Malay Peninsula cloves and other spices abound. See Maps, pp. 60, 61.

MINERALS.—Gold, silver, platinum, iron, copper, lead, and graphite are found in the Ural and Altai mountains; gold, copper, and graphite are also worked in India; quicksilver, and zinc in Tibet, China, and Japan; coal in Asia Minor, India, China, and Japan; salt in central Asia; petroleum in the Caspian districts and in Burma; diamonds in India and Siberia; sapphires in Ceylon; rubies in Burma. See *Economic Map of Asia*, p. 61.

ANIMALS.—Northern Asia is noted for its fur animals; southern Asia for its wild animals, poisonous reptiles, and brilliant insects. The characteristic animals are—the elephant, tiger, and buffalo in India; the camel in the southwest; the yak in Tibet; the horse and wild ass, sheep and goat in the table-lands; the sable, marten, and other fur-bearing animals in Siberia.

Europe and America are indebted to Asia for their domestic animals, as well as for their domestic poultry, except the turkey. The horse reaches the highest perfection in Arabia and in the arid regions of western Asia. Ponies, on the other hand, thrive better in the hilly tracts and the wetter regions of the east. Asses and mules are abundant practically throughout the continent. The humped oxen and buffaloes are the common beasts of draught in India and elsewhere. A hybrid between the buffalo and the Tibetan yak, called the zo, is raised in Tibet and the Himalayas. Sheep are abundant in the more temperate parts, while goats are universal; both of these animals are utilized as beasts of burden in Tibet. The reindeer of northern Siberia are used for saddle as well as for draught.

POLITICAL DIVISIONS OF ASIA

(See Map, p. 57)

COUNTRY	AREA (sq. miles)	POPULATION
ASIATIC RUSSIA (with Bokhara and Khiva)	6,405,121	25,645,000
TURKEY IN ASIA	597,110	17,684,000
<i>Independent States</i>		
HEJAZ	96,500	300,000
OMAN	82,000	500,000
PERSIA	635,135	9,000,000
SIAM	198,900	7,562,000
CHINA*	4,278,143	329,618,000
JAPANESE EMPIRE	258,806	69,737,000
<i>British Dependencies</i>		
INDIAN EMPIRE	1,900,000	315,000,000
CEYLON	25,500	4,100,000
STRAITS SETTLEMENTS	1,770	700,000
FEDERATED MALAY STATES	27,700	1,000,000
OTHER MALAY STATES (Johore, Kedah, etc.)	14,200	800,000
HONGKONG	390	440,000
WEIHAIWEI	300	160,000
NORTH BORNEO	31,000	204,000
BRUNEI	4,000	30,000
SARAWAK	50,000	650,000
CYPRUS	3,600	275,000
<i>Within British Sphere of Influence</i>		
AFGHANISTAN	250,000	5,000,000
BHUTAN	20,000	250,000
NEPAL	54,000	4,000,000
<i>Dutch Dependencies</i>		
DUTCH EAST INDIES	738,000	37,079,000
<i>French Dependencies</i>		
FRENCH INDIA (Pondicherry, Chandernagore, etc.)	200	277,700
FRENCH INDO-CHINA	309,979	16,600,000
<i>Portuguese Dependencies</i>		
PORTUGUESE INDIA (Goa, Daman, Diu.)	1,470	605,000
MACAO	4	80,000
TIMOR	7,450	300,000
Total	15,991,278	848,496,700

*The figures for China proper ("the 18 provinces") are: area, 1,532,789 square miles; population, 310,895,000.

ASIATIC RUSSIA

(See Map, p. 57)

Asiatic Russia consists of Russian Central Asia and Siberia, besides the dependencies of Bokhara and Khiva. Some authorities include Transcaucasia in Asiatic Russia; other seven extend the boundary to the Manych depression on the north of the Caucasus. For *Caucasia*, see under *Russia in Europe*, p. 275.

RUSSIAN CENTRAL ASIA.—This comprises the Steppes, Russian Turkestan, and the Transcaspien province; area, 1,366,833 square miles; population, 10,107,000. The extremes of climate are severe; the rainfall is very slight. The climate is milder than that of Siberia. In the valleys grain, cotton, tobacco, fruits, and mulberries (for the extensive silkworm culture) are produced. Tashkend is the capital (population, 272,300), where the wares of Bokhara (silks and cottons), Persia (pearls, precious stones, and weapons), and India (woven goods, spices, works of art, etc.) are exchanged for European products imported from Russia.

SIBERIA.—Siberia extends from the Ural Mountains to the Pacific; area, 4,831,882 square miles; population, 8,719,000. The climate is marked by long and severe winters and by short, hot summers. Agriculture can be carried on only in the south, where grains, potatoes, onions, melons, etc., are produced. In central and eastern Siberia are extensive forests of cedars, pines, firs, larches, and aspens. Domestic animals are numerously bred. The mineral wealth is great; it includes gold, silver, copper, lead, graphite, and extensive deposits of coal and iron. The Trans-Siberian railway has led to considerable immigration and trade. Siberia has been a great penal colony ever since its conquest by the Russians; but on the founding of the Republic in 1917 all political exiles were set free.

Tomsk (population, 117,000) is the western capital, and Irkutsk (population, 130,000) the eastern capital.

BOKHARA.—Bokhara is a vassal state of Russia, and has an area of 85,000 square miles, with a population of 1,250,000. The chief products are rice, wheat, fruit, hemp, cotton, and silk. The imports are principally manufactured goods and sugar. Bokhara is the capital (population, 75,000).

KHIVA.—The vassal state of Khiva lies between Bokhara and Russian Transcaspien; area, 26,000 square miles; population, 800,000, of whom about half are nomads. The country is very fertile. Khiva is the capital (population, 10,000).

CHIEF TOWNS AND INDUSTRIES OF ASIATIC RUSSIA

TOWN	POP. IN THOUSANDS	PRINCIPAL INDUSTRIES
<i>Siberia</i>		
IRKUTSK	130	Iron, glass, pottery, cereals, potatoes, distilleries.
TOMSK	117	Leather, cattle, metals, furs, carriages.
VLADIVOSTOK	91	(Chief seaport and naval station on the Pacific.) Mechanical and naval works, steam saw-mills, flour-mills.
KRASNOYARSK	87	Gold, brick, soap, leather, iron.
CHITA	79	Agricultural products.
<i>Russian Central Asia</i>		
TASHKEND	272	(Chief commercial centre.)
OMSK	136	Saw-mills, tanneries.
KOKAND	119	Cotton, silk.
SAMARKAND	98	Cotton, silk, wheat, rice, horses, fruits, cutlery.
ANDIZHAN	82	Cotton factories.

†For towns in Transcaucasia, see under *Russia in Europe*, p. 275.

TURKEY IN ASIA

(See Map, p. 57)

Turkey in Asia consists of Asia Minor, Armenia and Kurdistan, Mesopotamia, Syria, and part of Arabia. A considerable part of Asiatic Turkey has been occupied by Great Britain and Russia during the Great War; while in Arabia the Hejaz has proclaimed its independence, and the other provinces hold only nominal allegiance to the Ottoman Empire.

The *climate* varies, though it is principally warm. The winter and summer mean temperature at Smyrna is 48.5°F. and 78.8°F.; Jerusalem, 49.5°F. and 73.7°F.; Bagdad, 49.5°F. and 93°F.

ASIA MINOR.—The land is very fertile, but the Turks cling to antiquated methods of agriculture. The chief *products* are grain, fruits (raisins, figs, olives, pomegranates, etc.), tobacco, poppies for opium, grape-vines, cotton, madder, hemp, flax, roses, and numerous medicinal herbs. Horses, camels, mules, asses, and cattle are raised. The Greek population gives more attention to sheep and goats, including the Angora or mohair goat. Silk worms are reared; bee-keeping flourishes on the islands; large quantities of sponges are fished off the coasts. *Minerals* are abundant but are not much worked. Silver, copper, iron, coal, and salt are found. Eskishehr is famous for its *meerschaum*.

The chief port is *Smyrna*, the "flower of the Levant," where the ships of the West meet the caravans of the East.

ARMENIA AND KURDISTAN.—This mountainous region is of great historical interest as being the original seat of one of the oldest civilized peoples in the world. Armenia is intersected by the Euphrates. The chief *products* are wheat, barley, hemp, cotton, tobacco, and grapes; in some of the valleys peaches, walnuts, apricots, and mulberries are grown. The Armenians are Christians, and have been subjected to atrocious persecutions at the hands of their Turkish rulers (see under *Turkey in Europe*, p. 289). Kurdistan, *i. e.*, "Land of the Kurds," contains extensive forests, and numerous pastures. Cattle, sheep, and goats are raised, while the valleys yield rice, cotton, flax, and fruits.

MESOPOTAMIA.—Mesopotamia is populated principally by Arabs, Kurds, and Armenians. The country is drained by the Euphrates and Tigris, but is capable of much more irrigation and cultivation than exists at present. Sir William Willcocks projected a vast scheme of irrigation soon after the change of *régime* at Constantinople in 1908; but the carrying out of the work has been greatly hampered by lack of funds. One section of the scheme was completed by the inauguration of the *Hindîé Barrage* in December, 1913. More land is thus being brought under cultivation. The extension of the *Bagdad Railway* will still further help to develop the country.

SYRIA.—Syria is a long strip of mountainous country which stretches in an almost straight line from the Sinai Peninsula to the Gulf of Iskanderun. Its coast is called the Levant. *Palestine* or the *Holy Land* is a small district in the south, and is little larger than Belgium. The total area of this cradle of Christianity is about 11,000 square miles; its population is about 700,000, of whom 150,000 are Jews and the remainder principally Mohammedans. *Aleppo*, in northern Syria, stands at the meeting-point of several trade routes, and is the chief caravan station between the Euphrates and Iskanderun (or Alexandretta). *Damascus* is the chief city in Syria, and a great centre of the caravan trade. It was called "the Eye of the East." Here Paul was converted to Christianity. Damascus gives its name to a kind of cloth—*damask*. Its port is *Beirut*.

Jerusalem stands on a rocky plateau, and commands the water-parting of the Mediterranean and Dead Sea basins. It has a more wonderful history than any other city in the world. *Bethlehem*, where Christ was born, is a village a few miles south of Jerusalem. *Jaffa* is the port of Jerusalem. *Nazareth*, at the foot of Mount Tabor, is the chief city of Galilee. *Tiberias* is a small place on the Lake of Tiberias or "Sea of Galilee." *Gaza* is one of the oldest cities in the world: it is at least 4,000 years old, and is still a place of some importance. See Map of *Modern Palestine*, p. 63.

ARABIA.—Arabia, the most westerly of the three great peninsulas of Asia, has produced one of the most vigorous races that ever appeared on the globe, a race that at one time spread its dominion from Spain and Morocco on the Atlantic to the Eastern Archipelago in the Pacific. It has always been an isolated region, a land apart. Its hot climate and its barren soil have attracted no settlers, and its waterless deserts have repelled invaders; while it has poured out horde after horde of warriors who carried the religion of Islam with fire and sword into the richest countries of Asia, Africa, and Europe. The Arab Empire was at one time larger than that of Rome at its greatest extent. Even now, by their religion (the Mohammedan) and their institutions, the Arabs give law and custom to one-eighth of the human race.

The inhabitants are broadly divided into two classes: *Ahl Hadr*, the dwellers in the towns, and *Ahl Bedoo*, the dwellers in the open; hence the name *Bedouins*. The Bedouin is accustomed from infancy to lie on the hard ground, to endure the rays of an almost vertical sun, to go without sleep or food for days, to taste no strong drinks. He is the very soul of hospitality; "the guest is sacred in his camping-ground, and the foe himself is welcome once he has touched the tent-roof."

Arabia has no roads, no rivers, no canals, no lakes. The peninsula is crossed everywhere by well-marked caravan routes, the direction of which is determined by the number of wells and reservoirs along their course. All trade-routes converge on Mecca and Medina.

ADEN.—Aden, on the south of Yemen, together with the islands of *Perim*, *Kuria Muria*, and *Socotra*, is a British possession, politically attached to the province of Bombay, India. Aden is a coaling station for the British navy, and is strongly fortified.

CHIEF EXPORTS OF TURKEY IN ASIA.—Horses, camel's hair, cotton, silk, tobacco, madder, figs, raisins, olives, gallnuts, wine, opium, wax, gums, mastic, sponges, mohair, meerschaum, leather goods, carpets, and shawls.

CHIEF IMPORTS.—European manufactures, including linen and other fabrics, metal goods (especially weapons and gold and silver wire), hardware, porcelain, glass, clocks, instruments, tools; also hides and skins, pearls, precious stones, salt, iron, and colonial produce.

CHIEF CITIES AND INDUSTRIES OF TURKEY IN ASIA

CITY	POP. IN THOUSANDS	PRINCIPAL INDUSTRIES
ALEPPO	250	Textiles, wax, skins, soap, tobacco, gold, silver, and filigree work.
BAGDAD	225	Leather, silks, cottons, woollens, carpets.
BASRA	80	Exports dates, horses, wool, attar of roses. (Centre of traffic between Turkish, Persian, and Indian dominions.)
BEIRUT	150	(Chief seaport town in Syria.) Silk, Oriental books.
BITLIS	40	Tobacco, wine, cloth weaving.
BRUSSA	110	Satins, silk stuifs, carpets, gauze.
DAMASCUS	250	Silks, coarse cloths, firearms, swords, and jewellery.
DIARBEKR	38	Iron, copperware, leather, silk, and other textiles.
ERZERUM	80	Copper and iron. (Chief halting-place for Persian pilgrims on way to Mecca.)
HAMA	40	Pottery and black earthenware.
HAMA	60	Silk, woollen, and cotton goods.
HOMS	70	Silk, fruit, and cereals.
JAFFA (OF JOFFA)	45	(Seaport.) Fruit, especially "Jaffa oranges."
JERUSALEM	85	Olive oil, mother-of-pearl goods.
KAISARIYE	54	(Most important trade centre in Eastern Asia Minor.) Fruit, especially vines.
KERBELA	65	(Place of pilgrimage.)
KONIA	45	Carpet weaving, cotton, and silk.
MOSUL	80	Cotton stuifs; formerly noted for its muslins.
RODOSTO	42	Cereals and silk cocoons (produced in district).
SIVAS	65	Cotton cloth, woollen socks.
SMYRNA	375	(Seaport.) Carpets, textiles, pottery.
TREBIZOND	55	(Seaport.) Exports silk, wool, tobacco, wax, oil, etc.

KINGDOM OF HEJAZ

(See Map, p. 64)

The Kingdom of Hejaz attained its independence in November, 1916, during the course of the Great War. In virtue of its possession of Mecca and Medina, the Holy Places of Islam, the new kingdom may be regarded as the most important territory in Arabia. Hejaz was the chief centre of Ottoman influence in Arabia; its possession gave to the Turkish Sultan his best title to the Caliphate of Islam, to the name of "Commander of the Faithful." By means of the Hejaz Railway the Turks were enabled to maintain garrisons in the ports and the chief towns of the interior. The Grand Sherif of Mecca, the hereditary Keeper of the Holy Places, wielded great influence throughout the Mohammedan world; and as the presence of the Turks and their maladministration was always resented, the Grand Sherif headed a revolt, captured the Turkish garrisons, and proclaimed its independence, assuming the title of King of Hejaz.

Mecca (population, 80,000) is the birthplace of Mohammed and contains the *Caaba*—a small cubical building which contains the famous black stone fabled to have come down from Paradise whiter than milk, but to have become black by the sins of those who have touched it. The Caaba is the chief object of pilgrimage among Mohammedans. The fair at Mecca is the largest in the East. *Medina* (population, 40,000) is the second Holy City in Hejaz; it contains Mohammed's tomb. *Jedda*, on the Red Sea, is the seaport for Mecca. Horses, dates, and spices (incense, myrrh, manna, and balm) are the chief exports.

A railroad has recently been constructed from Aleppo to Medina, running through Damascus. It is planned to extend the line to Mecca for the accommodation of pilgrims.

OMAN

(See Map, p. 64)

Oman is an independent state in southeastern Arabia, with a coast-line of about 1,500 miles. It is ruled by a Sultan. The population is chiefly Arab, but includes a number of Indians, Persians, Baluchis, and Negroes. Much of the country is desert; *dates* are the chief product. The principal *imports* are rice, arms, wheat, coffee, cotton and silk goods.

Muscat (population, 24,000) is the capital. It was for a long time the centre of the gun-running traffic, which, in spite of the watchfulness of British warships, placed a number of modern rifles in the hands of the tribes of the northwest frontier of India.

PERSIA

(See Map, p. 65)

Persia, called by the natives *Iran*, is mostly an arid table-land, encircled, except on the east, by mountains. The central and eastern portion is a vast salt desert. There are only eight miles of railway open, and travelling is mostly by caravans, and transport by pack animals; the cost of carriage is, therefore, very heavy.

The chief *products* are cereals, cotton, gums, dried fruits, silk, tobacco, and opium. The *minerals* (little worked) are salt, iron, coal, copper, lead, sulphur, etc., with turquoises. *Oil-fields* in southern Persia have been successfully worked by an English company since 1902.

The only important manufacture is that of woollen carpets (mostly a domestic industry), but shawls, silks, and cotton fabrics are also produced. Sheep and goats are numerous, and good wool is obtained.

CHIEF EXPORTS.—Dried fruits, raw cotton, pearls, opium, rice, wool, fish, hides and skins, carpets, and silk cocoons.

CHIEF IMPORTS.—Cotton piece-goods, sugar, tea, cotton yarn, metal wares, gold and silver, petroleum, and indigo.

The sea-borne trade passes chiefly through the ports of Bushire, Bender-abbas, and Mohammerah, and *via* Bagdad.

GOVERNMENT.—Prior to 1906 Persia was an absolute monarchy under the Shah. Owing to increasing popular discontent with a corrupt administration and an extravagant Court, a nationalist movement wrested a constitution from the Shah in August, 1906. The Shah was deposed by the National Council, and his son, aged eleven years, appointed to succeed him.

CHIEF CITIES AND INDUSTRIES OF PERSIA

CITY	POP. IN THOUSANDS	PRINCIPAL INDUSTRIES
BARPURUSH	50	Rice, cotton, sugar cane. (Great emporium of trade between Persia and Russia.)
BENDERASSAS	10	(Trading port on Persian Gulf.)
BUSHIRE	12-20	(Seaport; terminus of the Indo-European telegraph; chief station in the Persian gulf of the British Indian Steam Navigation Company; considerable trade with India, Java, Arabia.) Exports wool, carpets, horses, grain, rosewater, etc.
ISFABAN	80	Trinkets, firearms, sword-blades, glass, earthenware, artistic brassware, textiles.
KEKMAN	70	Silks, shawls, woollens, etc.
MESHEH	70	Velvets, sword-blades, turquoise jewellery, silk and cotton goods.
RESHT	41	(Chief market for silks.)
SHIRAZ	32	Roses, wine, inlaid works.
TABRIZ	180	Silks, cottons, carpets, leather and leather goods.
TENERAN	250	Carpets, silks, cottons, articles of iron.
YEZD	55	Velvet and silk manufactures.

CAPITAL.—Teheran. Population, 280,000.

SIAM

(See Map, p. 67)

The Kingdom of Siam is a buffer State between British Burma and French Indo-China, and its integrity is guaranteed by the British and French governments by the Anglo-French Agreement of April, 1904. The upper part of Siam is mountainous, the lower flat.

The chief products are rice and teak. There is a large number of rice mills, mostly in or near Bangkok. The teak industry in the great forests of north Siam is mainly in British hands. Hides and marine products are also exported. The only important minerals are tin, wolframite, rubies, and sapphires. The chief imports are cotton goods and yarn, silk goods, provisions, kerosene, sugar, gunny bags, opium, machinery, metals and metal wares. About 1,100 miles of railroad are open for traffic. There are 3,000 miles of telegraph lines.

The king is an absolute monarch, and appoints his successor. Buddhism is the state religion. Bangkok (population, 629,000) is the capital.

CHINESE REPUBLIC

(See Map, p. 70)

China is the most populous, and, excluding Siberia, the largest country in Asia. China proper (or the Eighteen Provinces) is the most compact nationality in the world. The Chinese dependencies consist of Manchuria, Mongolia, Sinkiang, and Tibet. The foreign population of China is estimated at 154,000, including 78,000 Japanese, 51,000 Russians, and 10,000 British.

CLIMATE.—The climate varies greatly, owing to the extent of the country and to its build. Peking has a mean annual temperature of 50°F., Canton of 70°F. The southern coast districts are affected by the southwest monsoon. The interior of the country suffers greatly from drought.

NATURAL PRODUCTIONS.—Agriculture is the principal industry. In the north cotton, wheat, millet, and leguminous plants are cultivated. In the south, especially near the Canton River, rice, tea, and sugar grow, and the silk-worm is raised on a large scale. Opium poppies are cultivated in western China, although considerable efforts have recently been made to suppress this particular industry. The coal-fields are extensive, and have been worked on a small scale for many centuries. The development of the mines all over the country is proceeding.

MANUFACTURES.—Silk is the chief textile woven; there are also manufactures of cotton, although large quantities of cotton-cloth are imported. Paper and fine porcelain are made, principally by primitive processes. Flour and rice mills have a considerable output. The manufacture of paper lanterns is a characteristic industry; as also are wood and ivory carving, lacquered and gilt wares, and inlaid metal work.

Chinese industry is chiefly in the hands of small craftsmen, and the products are marked by excellent workmanship. In their own country the Chinese do not readily combine for the purpose of manufacture on a large scale.

CHIEF CITIES OF CHINA

CITY	PROVINCE	POP. IN THOUSANDS	CITY	PROVINCE	POP. IN THOUSANDS
AMOY†	Fukien	114	LANCOWFU*	Kansu	500
ANKING*	Anhwei	40	NANCHANG*	Kiangsi	300
ANTUNG	Shengking†	161	NANKING*†	Kiangsi	267
CANTON*†	Kwangtung	900	NANNING†	Kiangsi	37
CHANGSHA*†	Hunan	250	NEWCHWANG†	Shengking†	61
CHREFOO†	Shantung	54	NINGPO†	Chekiang	350
CHENGTO*	Szechwan	450	PEKING*	Chihli	821
CHINKIANG†	Kiangsu	184	SHANGHAI	Kiangsu	651
CHUNGKING	Szechwan	598	SHASHI†	Hupei	90
FOOCHOW*†	Fukien	624	SOOCHOW†	Kiangsu	500
HANGCHOW*†	Chekiang	350	SWATOW†	Kwangtung	66
HANKOW†	Hupei	826	TAIYUANFU*	Shansi	230
HARBIN†	Kirin†	35	TIENSIN	Chihli	800
ICHANG†	Hupei	55	TBINAN*†	Shantung	40
KAIKENG*	Honan	200	WENCHOW†	Chekiang	100
KIUNGCHOW*†	Kwangtung	43	WUCHANG*	Hupei	500
KONGMOON†	Kwangtung	62	WUCHOW†	Kwangsi	59
KWEILIN*	Kwangsi	80	WUHU	Anhwei	122
KWEIYANG*	Kweichow	100	YUNNANFU*	Yunnan	45

*Capital of province. †Treaty port. ‡Manchuria.

CAPITAL.—Peking. Population, 821,000.

TREATY PORTS.—The treaty ports, and other ports opened by China to foreigners, number 64; the chief ports are indicated in the above table. About 19,000 Europeans reside in the treaty ports. Shanghai is the principal foreign centre, with a foreign population of over 11,000.

COINAGE.—The coinage used by the Chinese is the cash, made of copper and zinc, 17 of which are equal to one American cent. The tael or liang, as the Chinese call it, is a silver standard, the weight and the fineness of which differ in different towns, but the Haikwan tael is that in which duties are paid to the Maritime Customs, and this is a weight of 585.3 grains of pure silver 1,000 fine, the value of which is about 66 cents. Several attempts have been made in recent years to reform the currency. The latest of these, put forward by Imperial decree in May, 1910, ordered that the yuan or silver dollar should be the standard, and that after twelve months all payments to the Government must be made on this basis. A decree establishing a uniform system of weights and measures was issued in 1907.

COMMERCE.—Trade is principally carried on with the following countries: British Empire (42 per cent), Japan (24 per cent), United States (9 per cent), Russia (6 per cent), Germany, France, and Italy. In addition to overseas trade China has an extensive coast and river trade, in which under special regulations steamers under foreign flags are allowed to participate.

CHIEF EXPORTS.—Raw and manufactured silk, beans and bean cake, tea, cotton, hides, vegetable oils, tin, sesamum seed.

CHIEF IMPORTS.—Cotton goods, opium, metals, rice, cigarettes, fish, coal, and woollen goods.

COMMUNICATIONS.—About 6,500 miles of railroads are open, inclusive of the Manchurian lines, while 2,500 miles more are projected or under construction. The internal trade of China is chiefly carried on by means of numerous canals and navigable rivers. The roads are numerous but badly kept. The inadequate means of transport largely accounts for the slow development of industrial China.

Telegraphs are being rapidly constructed, and Peking is in communication overland with Europe and Tibet. There are 37,000 miles of land lines and 51,000 miles of aerial lines.

MANCHURIA.—Manchuria lies to the north of China proper, and has a total area of about 360,000 square miles, with a population estimated at 11,000,000. The capital is Mukden (population, 250,000), a station on the Manchurian railroad and connected with the Russian system. Indigo, opium, cotton, tobacco, and various cereals are grown, and there is great mineral wealth.

MONGOLIA.—Mongolia has a total area of 1,076,000 square miles and a population estimated at about 3,000,000. Outer Mongolia is now, by a treaty of 1915, an autonomous state under Chinese suzerainty. The chief industry is cattle and sheep raising and the provision of transport animals. The principal exports are wool, hides and skins, furs, horns, etc. The chief town is Urga (population, 38,000).

SINKIANG.—The province of Sinkiang consists of Chinese Turkestan, Kulja, and Ili or Kashgaria, and comprises all Chinese dependencies lying between Mongolia and Tibet. In the river districts cereals, fruits, and vegetables are grown. Other natural products are wool, cotton, and silk. Jade is worked, and in some districts gold is obtained. The inhabitants of Sinkiang are of various races collectively known as Turki. Tihwafu (population, 50,000) is the capital. Other towns are Kashgar, Yarkand, Khotan, and Aksu.

TIBET.—Tibet is a plateau, seldom lower than 10,000 feet, on the northern frontier of India. On account of the mountainous character of the country and the Tibetan objection to the presence of strangers, wide regions are still unexplored. The prevailing religion is Lamaism, a corrupt form of Buddhism, noteworthy for its ritualistic practices, including the use of prayer wheels, rosaries, bells, etc. At the head of the hierarchy is the Grand (or Dalai) Lama, who is also head of the government. There is a large trade with China and India. The chief products are wool, borax, salt, and musk. Lhasa (population, 25,000) is the capital; it is a sacred city.

LEASED DISTRICTS.—Various districts have been "leased" to other powers: Weihaiwei and Kowloon to Great Britain; Port Arthur and Dairen (Talienwan) to Russia, though Japan took these in 1905 and the Liaotung Peninsula was leased to Japan in December, 1905. Kiaochow was leased to Germany in 1898, but was lost in the Great War to the Allies and occupied by Japan, pending the termination of the war. Kwangchow (or Kwangchow-wan) was leased to France in 1898.

GOVERNMENT.—A Republic was established in February, 1912, following a revolution which resulted in the abdication of the Manchu dynasty. Both Houses of Parliament are elected by a system of limited franchise. The President is elected by Parliament, and is assisted by a premier and a cabinet.

RELIGIONS.—The three chief established religions are Confucianism, Buddhism, and Taotism, the Buddhists preponderating. The worship of ancestors is everywhere practised. Roman Catholics have over 1,790,000 professed followers in China, and Protestants over 526,000.

JAPANESE EMPIRE

(See Map, p. 69)

Japan, called by the Japanese Nippon or Nihon, consists of four large and many small islands, said to number in all more than 4,220. The principal islands are Honshu (or Hondo), the largest island of Japan, Shikoku, Kiushu, and Yezo (or Hokkaido). The Kurile Islands have belonged to Japan since 1875. The islands of Japan are volcanic, and eighteen of the summits are still active. Fujiyama or Fujiisan (12,370 feet high) is the loftiest and most sacred mountain of Japan; it has been dormant since 1707. Japan is also liable to frequent and sometimes disastrous earthquakes.

CLIMATE.—The climate on the whole is 10 degrees colder than that of the corresponding latitudes of Europe or north Africa. The summer is hot, damp, and cloudy; the winter, cold, bright, and dry. The mean temperature of Tokyo in January is 36°F. and in August (the hottest month) 79°F.

Sudden cyclonic storms known as *typhoons* are of common occurrence, especially from June to October.

NATURAL PRODUCTIONS.—On account of the mountainous nature of the country, not more than one-sixth of its area is available for cultivation. The soil teems with every kind of agricultural produce. *Rice, cereals, tea, sugar, tobacco, potatoes,* and *fruit* are produced. The land is largely held by peasant proprietors, and more than 60 per cent of the population are engaged in agriculture. The coasts are extremely rich in fish. There are extensive *forests* containing the camphor tree, paper mulberry, vegetable wax-tree, the lacquer-tree, which furnished the celebrated "lacquer" of Japan; also other valuable timber trees.

The chief *mineral resources* are copper, iron, sulphur, lead, antimony, and zinc. There is a good supply of coal of moderate quality. Gold, silver, agate, cornelian, and rock crystal are also found.

MANUFACTURES.—European methods of manufacture are being increasingly introduced, and manufacturing is now being developed in a very marked manner, its growth being reflected in the commerce. The chief manufactures are silk and cotton, cotton yarn, matches, paper, glass, lacquer ware, leather work, porcelain, and bronze; shipbuilding is an important industry in the yards.

CHIEF CITIES OF JAPAN

CITY	POP. IN THOUSANDS	CITY	POP. IN THOUSANDS
FUKUOKA	97	OSAKA*	1,460
HAKODATE*	100	OTARU	93
HIROSHIMA	167	SAPPORO	97
KANAZAWA	130	SASEBO	95
KOBE*	498	SENDAI	104
KURE	128	SHIMONOSEKI*	72
KYOTO	539	TOKYO	2,245
MOJI	72	WAKAYAMA*	78
NAGASAKI*	161	YOKOHAMA*	429
NAGOYA	389	YOKOSUKA	85
OKAYAMA	87		

*Seaport

CAPITAL.—*Tokyo* (formerly called *Yeddo* or *Yedo*). Population, 2,245,796.

COMMERCE.—The chief *imports* are raw cotton from India, United States, Egypt, and China; flour from the United States; and piece goods, metals, manures, woollens, wool, drugs, rails, locomotives, and machinery from Europe and the United States. Sugar is largely imported from the Dutch East Indies and Formosa; indigo from Germany and British India; kerosene oil from the United States and the Dutch Indies; beans, peas, and pulse from China and Korea, and rice, principally from British India, French India, Korea, Siam, and China.

The chief *exports* are silk, cotton yarns, rice, tea, fish, copper, matches, coal, camphor, straw plait, porcelain, earthenware, lacquer ware, and marine products. Foreign jurisdiction in the treaty ports was abolished in 1899, and in return the country was thrown open to European traders, instead of only the treaty ports.

COINAGE.—A gold standard was adopted in 1897, the unit of value being the *yen* = 0.75 gramme of pure gold. The *yen* is the equivalent of \$0.498 United States coinage, and is divided into 100 *sen* or cents.

COMMUNICATIONS.—There are over 6,600 miles of railroad open, besides more than 1,000 miles in Korea and 320 miles in Formosa, while the South Manchurian Railway in China is under Japanese control. There are 25,000 miles of telegraph lines.

GOVERNMENT.—Prior to 1889 Japan was an absolute monarchy, but in that year a constitution was promulgated. Executive power is vested in the Emperor, with the advice of his ministers. The *Diet* consists of a House of Peers and a House of Representatives. The *House of Peers* numbers about 370, including life members and those elected for seven years. The *House of Representatives* consists of 379 members, elected for four years. Elected and nominated members of both Houses are paid 2,000 *yen* (about \$1,000) for each session, with travelling expenses.

KOREA.—Korea or Chosen is the peninsula lying between the Yellow Sea and the Sea of Japan. Until 1894 China was the suzerain of Korea, but on the conclusion of the war in 1895, China relinquished her suzerainty, and the independence of Korea was acknowledged. Then began the struggle with Russia, which culminated in the Russo-Japanese War, and by the peace treaty between Russia and Japan, 1905, the paramount interest of the latter country in Korea was acknowledged. Five years later, in August, 1910, Korea was formally annexed by Japan.

Rice, millet, cotton, hemp, and *tobacco* are grown in the fertile districts skirting the sea. *Ginseng*, a medicinal root much affected by the Chinese, is largely grown under government supervision, and, being a government monopoly, forms a rich source of revenue. *Gold, copper, iron,* and other minerals are found. The chief *exports* are beans, rice, live stock, hides, ginseng, wheat, barley, iron ores, and raw cotton. *Manufactures* are as yet in a primitive condition, the principal being hemp cloth, brass ware, and an excellent quality of paper resembling the Japanese article, but stouter. *Seoul* (population, 217,000) is the capital.

FORMOSA.—The island of Formosa (*Taiwan*) lies off the Chinese coast. It was ceded by China to Japan in 1895, following the China-Japanese War. The chief products are coal, tea, sugar, rice, and camphor. *Taihoku* (population, 103,000) is the capital.

SAKHALIN.—The southern half of the island of Sakhalin was ceded by Russia at the end of the war in 1905, and has been named *Karafuto*. There are extensive forests, and its fisheries are valuable.

PESCADORES.—The Pescadores (called by the Japanese *Hoko* or *Hokoto*) is an island group between Formosa and China; area, 85 square miles; population, 55,000.

KWANTUNG.—Kwantung (or *Kwanto*), the southern portion of the Liaotung Peninsula in Manchuria, was originally leased by Russia to China, and was similarly leased to Japan after the Russo-Japanese War. *Dairen*

(formerly *Dalny*), the capital, has a population of 69,000 and provides Japan with a mainland port, ice free all the year round. *Port Arthur*, which was captured in the war with China (1895) and again successfully besieged in the Russo-Japanese War (1904-5), is also an ice-free port. The climate of Kwantung is mild, and grain is cultivated with success. Coal and salt are worked.

Kwantung should be carefully distinguished from the Chinese province of *Kwangtung*, which lies many miles to the south of the Liaotung Peninsula.

INDIAN EMPIRE

(See Maps, pp. 66, 67)

The Indian Empire comprises the great peninsula of Asia between the Arabian Sea and the Bay of Bengal, also the strip of territory bounding that bay on the east. Its area is greater than that of the continent of Europe without Russia. "British India" means all territories governed by the Crown through the governor-general of India; while "India" means British India, together with the various native states under British suzerainty. This is the sense in which the terms "British India" and "India" are used in British official publications.

CLIMATE.—About half the country is within the tropics, but the greatest extremes of heat and cold are in the northwest. In the Himalayas the climate is moist and cold. In northern India it is dry, and the winters are rather cold. In tropical southern India the climate is more equable. Calcutta, Bombay, and Madras all have an equable climate, owing to proximity to the sea. The hot season begins about the middle of March and from then until the bursting of the monsoon there is a steady rise of temperature, induced by the fiery rays of the sun upon the parched earth. At Jacobabad in Upper Sind the thermometer sometimes reaches 125°F. in the shade.

India depends for its fertility upon the monsoon rains. The southwest monsoon brings moisture from the ocean south of the equator, and reaches the west coast early in June and the northern provinces late in June. The mountains arrest these currents and precipitate rainfall, which averages 60 inches in the sub-Himalayan region, 39 inches in the Indo-Gangetic plain, and 30 inches in the Deccan, but is small in Sind and Rajputana. Madras benefits by the northeast monsoon in the autumn.

POPULATION.—The population of India at the last census was over 315,000,000—more than three times the population of the United States and seven times that of the United Kingdom. Yet India is not over-populated, for two-thirds of the people live on one-quarter of the area.

CASTE.—Owing to the operation of the caste system India is broken up into a large number of mutually exclusive aggregates, the members of which are forbidden by an inexorable social law to marry outside the group to which they themselves belong. A caste may be defined as a collection of families, or groups of families, bearing a common name, which is usually associated with a specific occupation. The census of 1901 enumerated 2,378 castes and tribes. The boundary of a caste may be said to be fixed by the rule restricting intermarriage, but its social status depends on the occupation of its members and their habits in respect of diet.

There are four great divisions of the Hindu caste system: (1) The *Brahman*, or sacred caste; (2) the *Kshatriya*, the warrior or princely caste; (3) the *Vaiya*, or mercantile and agricultural caste; (4) the *Sudra*, or artisan and labouring caste. It is sometimes stated in books that outcastes are called *Pariahs*. This is not correct; for the Pariah is a member of a low caste of Hindus in southern India, and there are a number of castes still lower than that of the Pariah. Caste does not prevail in Burma, for the Burmese are principally Buddhists among whom caste is not countenanced.

MARRIAGE.—Marriage is almost universal, owing to religious obligations. The movement against infant marriage and enforced widowhood is gaining ground. At the last census there were over 26,400,000 widows in India.

NATURAL PRODUCTIONS.—The majority of the population are engaged in agriculture, nearly two hundred millions being either engaged in tilling the soil or dependent upon those so engaged. Great irrigation works have been carried out over an area exceeding 42,000,000 acres. The chief crops are *rice, wheat, millet, pulse,* and other food grains, *oil-seeds, tea, cotton, sugar cane, indigo, tobacco,* and *coffee*. The cultivation of *opium* is a government monopoly; but the area under cultivation is contracting as the result of an agreement with China to restrict the export.

Special attention is paid to forests, and huge tracts have been reserved in recent years. The forest area exceeds 80,000,000 acres.

The country is rich in *coal*, especially in Bengal. *Iron* also is abundant but is little worked. *Gold* is mined chiefly in Mysore. Crude *petroleum* is produced chiefly in Burma. *Manganese, saltpetre, salt, mica, wolfram,* and *monazite* are produced. There is a fluctuating output of *rubies* and *jade*.

MANUFACTURES.—In India the ancient village handicrafts still survive, though they suffer more and more from the competition of machine-made goods. Cotton-weaving is by far the most important hand industry. Power mills have grown up under European auspices, but are now largely owned by natives. There are at present 255 cotton mills at work in India, mostly in Bombay and Ahmadabad, containing 6,600,000 spindles and 103,000 looms. There is a tendency to produce finer yarns, and to pay more attention to weaving. The 70 jute mills, mostly situated in or near Calcutta, contain 796,000 spindles and 38,000 looms. There are also woollen and paper mills, breweries, and various other factories.

POLITICAL DIVISIONS.—The provinces are: Madras (officially, Presidency of Fort St. George), Bombay, Bengal, the United Provinces of Agra and Oudh, the Punjab, Central Provinces and Berar, Assam, the Province of Bihar and Orissa, North-West Frontier Province, Ajmer-Merwara, Andaman and Nicobar Islands, and Burma.

The Province of Delhi was constituted in 1912 on the creation of the new capital. It consists of a small enclave in the Punjab, with an area of 557 square miles, and a population of about 400,000. The province is under a chief commissioner.

CHIEF CITIES AND INDUSTRIES OF INDIA

CITY	PROVINCE	POP IN THOUSANDS	PRINCIPAL INDUSTRIES
AGRA	United Provinces	185	Cotton, boots, flour.
AHMADABAD	Bombay	217	Cotton, gold and silver thread, silk brocades, pottery, paper, shoes.
AJMER	Ajmer-Merwara	86	Oil-making, cotton.
ALLAHABAD	United Provinces	172	Market for cotton, sugar, indigo, etc., of district.
AMBALA	Punjab	80	(Military station.) Centre for cotton and grain trade of district.
AMRITSAR	Lahore	153	Shawls, silks, and cottons.
BANGALORE	Mysore*	189	Silks, cottons, carpets, gold and silver lace.
BAREILLY	United Provinces	129	Sword-cutlery, perfumery, furniture, upholstery, gold and silver lace.
BARODA	Baroda*	99	Market for district trade (grain, cotton, oil-seeds).
BENARES	United Provinces	204	(Holy City of the Hindus.) Silk brocades, shawls, jewellery, gold and silver thread, brasswork, lacquered toys.
BRAGALPUR	Bengal	74	Indigo works.
BOMBAY	Bombay	979	Dyeing, tanning, metal working, cottons, furniture.
CALCUTTA	Bengal	1,222	(Former capital of British India; important shipping centre.) Cotton, jute.
CALICUT	Madras	78	Coffee cleaning, coir pressing, timber cutting, cottons, tile, oil works.
CANPORE	United Provinces	179	Leather and cotton goods.
DACCA	Dacca	109	Rice and muslins.
DELHI	Delhi	233	Ivory-carving, jewellery, muslins, glazed pottery, embroidery, shawls, gold and silver filigree work, miniature painting on ivory.
HYDERABAD	Hyderabad*	501	General trade, cotton.
HYDERABAD	Bombay	68	Silk, gold and silver embroidery, lacquered ware, pottery, cotton spinning.
JAIPUR	Jaipur*	137	Metal working, marble.
JUBBULPORE	Central Provinces & Berar	101	Cottons, carpets.
KARACHI	Bombay	152	Iron works, cotton cloth, silk scarfs, and carpets.
LAHORE	Punjab	229	Silk goods, metal works, carpets, cotton, flour, oil, soaps, leather goods.
LUCKNOW	United Provinces	260	Muslins, embroidery, brass and copper ware, gold and silver brocade.
MADRAS	Madras	519	Cotton mills, cement works, iron foundries, cigars.
MADURA	Madras	134	Cigars, brass ware, cotton cloth.
MANOALAY	Burma	138	General trade.
MEERUT	United Provinces	116	(Centre of cotton trade.)
MORADABAD	United Provinces	81	Metal work, cottons.
MULTAN	Punjab	99	Carpets, shoes, glazed pottery, enamel work, silk and cotton goods.
MYSORE	Mysore*	71	Carpets, silks, jewellery.
NAGPUR	Central Provinces	101	Copper, brass, cotton, woollen goods.
PATNA	Bihar & Orissa	136	Rice, opium.
PESHAWAR	North-West Frontier Province	98	Scarfs, knives, small arms, wax-cloth.
POONA	Bombay	159	Brass ornaments, copper, ivory, jewellery, silk and cotton fabrics, paper.
RAMPUR	United Provinces	74	Pottery, damask, sword-blades, jewellery.
RANGOON	Burma	293	(Capital of Burma.) Rice, saw-mills, petroleum, wood and ivory carving, silver work.
RAWALPINDI	Punjab	86	(Arsenal.)
SHAHJAHANPUR	United Provinces	72	Sugar works.
Srinagar	Kashmir*	126	Shawls, paper, leather, carpets, firearms, attar of roses, wood carving, copper and silver ware, boat-building.
SURAT	Bombay	115	Silks and cottons.
TRICHINOPOLY	Madras	124	Cigars, gold and silver jewellery, hardware.

*Native State.

CAPITAL.—Delhi. Population, 232,837.

CHIEF PORTS.—Calcutta, Bombay, Rangoon, Madras, Karachi, Tuticorin.

COMMERCE.—Among the countries constituting the British Empire, India comes second to the United Kingdom itself in the volume of its sea-borne trade, which almost equals that of Canada and Australia combined. Two-thirds of the exports consist of food, tobacco, and raw materials, while the bulk of the imports consists of manufactured articles. Trade is carried on with the following countries: United Kingdom (60 per cent of imports and 38 per cent of exports), United States (6 per cent of imports and 11 per cent of exports), Japan, France, Italy, Russia, China, and Belgium.

CHIEF EXPORTS.—Jute, cotton, tea, rice, lac, dyes, seeds, hides and skins, wheat and flour, leather, raw wool, opium, rubber, oils, oil-cake, raw hemp, coffee, spices, manganese ore, barley and other cereals.

CHIEF IMPORTS.—Cotton goods, cotton yarn, sugar, iron and steel, machinery, railway material, mineral oil, silk goods, hardware, provisions, liquors, spices, chemicals, paper, apparel, matches, automobiles, bicycles, instruments, salt, fruits, vegetables, drugs and medicines, raw silk, building materials, glass, haberdashery, etc.

COMMUNICATIONS.—There are over 36,000 miles of railways, mostly owned by the State. There are over 330,000 miles of telegraph wires.

COINAGE.—The principal coin in use is the silver *rupee*, containing 165 grains of fine silver and 15 grains of alloy, and weighing in all 180 grains troy. The rupee is equal to \$0.324 in United States coinage, and 1s. 4d.

in English money. The British sovereign is legal tender in India at the ratio of 15 rupees to the sovereign. The rupee is divided into 16 *annas*, the *anna* being equal to 2 U. S. cents or 1d. The *anna* is subdivided into twelve *pies*, or 4 *pice*.

GOVERNMENT.—See under *United Kingdom*, p. 255.

NATIVE STATES.—The Native or Feudatory States comprise about two-fifths of the area and two-ninths of the population of India. Their administration, with a few minor exceptions, is not under the direct control of British officials, but is subject in varying degrees to the supreme government. The Native chiefs are entitled to British protection, but have no power of making war and peace, or of sending ambassadors to one another or to foreign states; the military force they maintain is strictly limited; no European is allowed to reside at any of their courts without special sanction; and in case of misrule the supreme government can dethrone or suspend the chief. Generally speaking, the Native States are governed by their own princes, ministers, and councils, with the advice of a political officer of the supreme government.

The principal Native States are Hyderabad (the premier State in India; area, 82,698 square miles), Mysore, Baroda, Bhopal, Gwalior, Indore, Jammu and Kashmir, Kalat, Kolhapur, Mewar (Udaipur), Travancore, Bahawalpur, Bharatpur, Bikaner, Bundi, Cochin, Jaipur, Karauli, Kota, Kutch, Marwar (Jodhpur), Patiala, Rewa, Tonk, Alwar, Jaisalmer, Khairpur, Orchha, Sikkim, Sirohi, Cooch Behar, Tippera, Bhaunagar, Chamba, Junagadh, Manipur, Nawanagar, Palanpur, Panna, and Tehri-Garhwal.

BRITISH RULE IN INDIA.—Of British rule in India Colonel Roosevelt says: "In India we encounter the most colossal example history affords of the successful administration by men of European blood of a thickly populated region in another continent. It is the greatest feat of the kind that has been performed since the break up of the Roman Empire. Indeed, it is a greater feat than was performed under the Roman Empire. Unquestionably mistakes have been made; it would indicate qualities literally superhuman if so gigantic a task had been accomplished without mistakes. It is easy enough to point out shortcomings, but the fact remains that the successful administration of the Indian Empire by the English has been one of the most notable and the most admirable achievements of the white race during the past two centuries. On the whole it has been for the immeasurable benefit of the nations of India themselves.

"Suffering has been caused in particular cases and at particular times to these natives; much more often, I believe, by well-intentioned ignorance or bad judgment than by any moral obliquity. But on the whole there has been a far more resolute effort to secure fair treatment for the humble and the oppressed during the days of English rule in India than during any other period of recorded India history. England does not draw a penny from India for English purposes; she spends for India the revenues raised in India, and they are spent for the benefit of the Indians themselves.

"The mass of the people has been and are far better off than ever before, and far better off than they would now be if English control were now withdrawn from India: the whole Peninsula would become a chaos of bloodshed and violence."

Ex-President W. H. Taft bears similar testimony: "When I think of what England has done in India for the happiness of those people; how she found those many millions torn by internecine strife, disrupted with constant wars, unable to continue agriculture or the arts of peace, with inferior roads, tyranny and oppression, and when I think what the government of Great Britain is now doing for these alien races, the debt the world owes England ought to be acknowledged in no grudging manner."

CEYLON

(See Map, p. 66)

Ceylon is a British crown colony situated southeast of the Indian peninsula. Its greatest length from north to south is 270 miles; its greatest width 140 miles. The *climate* varies with the altitude; but on the whole, though tropical, it is healthful, except in the low-lying jungle. The coolest months are December and January; the hottest are April and May.

The staple *products* are agricultural. The most important for home consumption is rice in its two forms of paddy and dry grain. Besides rice and other grain, the chief crops are: tea, coffee, coconut, rubber, cinnamon, cocoa, and tobacco. Cattle, sheep, goats, pigs, and horses are raised.

Among the more important *native industries* are gold, silver, ivory, and tortoiseshell work, pottery, mats, fans, and woodcarving. Ceylon is famous for precious stones, especially cat's-eyes, rubies, etc.; the pearl fishery yields a large revenue. The manufacture of *salt* is a government monopoly. Ebony is also produced and exported. There are over 700 miles of railway open, and 6,560 miles of telegraph wire. *Colombo* (population, 251,000) is the capital and chief port.

STRAITS SETTLEMENTS

(See Map, p. 67)

The whole of the Malay Peninsula, from the southern boundary of Siam to the Strait of Singapore, is within the British sphere, the administrative groups being the *Straits Settlements* (Singapore, Penang, Malacca, Labuan, Cocos Islands, and Christmas Island), the *Federated Malay States* (Perak, Selangor, Negri Sembilan, and Pahang), the *Feudatory Malay States* (Kelantan, Trengganu, Kedah, and Perlis or Palit) and the *Protected State of Johore*.

The *climate* is almost uniform throughout the year, and foliage is perennial. The rainfall in Singapore amounts to 85.8 inches, in Penang 89.5, and in Malacca 84 inches.

The chief *products* are gutta-percha, gambier, pepper, rubber, horns, hides, canes, shells, sago, tapioca, spices, dye-stuffs, copra, rattans, coffee, gums, tin, preserved pineapples, etc. The chief *imports* are rice, cotton piece goods, opium, petroleum, and coal. *Singapore* (population, 139,000) is the most important port of call for vessels to and from the Far East. It is of great strategic value as a naval base. *Georgetown* is the chief town and seaport of Penang.

HONGKONG

(See Map, p. 76)

Hongkong is a British crown colony situated off the southeast coast of China at the mouth of the Canton River. British Kowloon on the mainland also forms part of the colony. The island of Hongkong is mountainous, the highest point being Victoria Peak (2,820 feet high). The Peak district is a favourite place of residence, and is reserved for Europeans. The climate is comparatively cool and dry during the winter months. The hot season lasts from May to October. Hongkong is the centre of a vast trade in many kinds of produce, chiefly sugar, opium, flour, oil, amber, cotton, ivory, betel, sandalwood, rice, tea, woollens, silks, salt, etc. *Victoria* (population 161,000) is the capital. The harbour is one of the finest in the world.

— AFGHANISTAN

(See Map, p. 65)

Afghanistan is a "buffer state" on the northwest frontier of India. It is called by the natives *Khorassan*. Its foreign relations are exclusively with Great Britain. The chief products are silks, carpets, shawls, chintz, fruits, furs and madder. *Kabul* (population 60,000) is the capital.

BHUTAN

(See Map, p. 57)

Bhutan is on the southeast of the Himalayas. Part of the state was annexed to India in 1863; the remainder is within the British sphere of influence. Rice and other grains, cattle, jute, etc., are produced. *Punaka* (population 5,000) is the capital.

NEPAL

(See Map, p. 57)

Nepal lies between India and Tibet; it contains Mt. Everest. The state is under British control as regards its foreign relations. Grain, jute, cattle, etc., are exported; cotton goods and yarn, metals, sugar, salt, spices, etc., are imported. *Katmandu* (population 50,000) is the capital.

DUTCH EAST INDIES

(See Map, p. 57)

The Dutch possessions in the East Indies include (1) Java, with Madura; and (2) what are called the Outposts, viz., Sumatra, part of Borneo, Celebes, the Moluccas, part of New Guinea, and the Sunda and other islands.

JAVA.—Java is the chief seat of Dutch power in the Orient. The chief products are sugar, rice, coffee, tea, tapioca, quinine, and cinchona bark, teak, and rubber. *Batavia* (population, 139,000) is the capital.

FRENCH INDO-CHINA

(See Map, p. 67)

French Indo-China consists of the colony of Cochin-China and the protectorates of Cambodia, Annam, Tonkin, and Laos, together with the leased territory of Kwangchow-wan. The chief products are rice, pepper, cotton, tea, sugar, silk, salt, copra, hides, etc. *Hanoi* (population 115,000) in Tonkin is the capital. *Saigon* (population 68,000) is the chief city of Cochin-China.

AUSTRALASIA AND POLYNESIA

THE ANTIPODES.—Australia is antipodean in character as well as in position. Though nearly as large as Europe, it has only one river of any size or importance. The country is full of other peculiarities: trees shed their bark, not their leaves; cherries have their stones outside; flowers have commonly no perfume; quadrupeds run on two feet; mammals lay eggs; and most birds have no song.

When the first European settlers visited the country they found no grain to eat, no domestic animals to give milk or to draw burdens, and not the smallest trace of civilization. The discovery of gold in 1851 caused a great rush of immigrants, and started the country on that career of prosperity which has since been almost uninterrupted.

Convicts were long sent to Australia from the mother country, but transportation to New South Wales practically ceased in 1840, and the last convict vessel to Western Australia arrived in 1868. About 70,000 convicts were landed in Australia, besides almost as many in Tasmania.

AUSTRALIAN ABORIGINES.—The natives of Australia, or *blackfellows* as they are called, are considered among the lowest as regards intelligence in the whole human family. They are of poor muscular development, and have a chocolate brown or black skin, with coarse, wavy and abundant hair and beard. They are ignorant even of the use of the bow and arrow, though in their unique weapon, the boomerang, they possess an effective substitute. In the settled parts of the country they are inoffensive and rapidly dying out. They have no fixed dwelling; in the summer they live principally in the open-air, and in stormy weather they shelter themselves with bark erections of the rudest construction. They wear little or no clothing. They are occasionally employed by the settlers in light kinds of work, and as horse-breakers; but they dislike continuous occupation and soon give it up.

Most travellers agree in regard to the low intellectual development of the Australians. However, they have sufficiently complex social customs, an extensive folk-lore, and their children have been known, in the missionary schools, to learn to read and write more quickly than European children; arithmetic only appearing to be outside the limits of their intelligence. It should be remarked in regard to

all Australian dialects that they have special words only for the figures one and two, occasionally for three and four; but most frequently "two and one" is used for "three," and "two and two" for "four."¹

NATIVE TRACKS UP TREES.—One of the most curious sights in the bush is that of the ancient tracks of aborigines up the trees, which have been climbed by them to obtain opossums or wild honey. These tracks are a series of small notches made each by three blows of the tomahawk, to admit the great toes, and thus act as a ladder to the black-fellow.

The tracks, which are to be seen everywhere in Australia, lead to the most astonishing heights, up bare perpendicular smooth-barked gum-trees. Knowing bushmen can distinguish the ancient ones made by the stone tomahawk before the blacks obtained iron from the English. Many are to be seen on old dead barkless tree-trunks, and now that the blacks are gone they remind one of fossil foot-prints of extinct animals.

Marvellous as this power of climbing with so little support is, it can be done by whites, and I was assured in New South Wales, when on the Hawkesbury River, that there was a white man in the neighbourhood who could beat any black at this sort of climbing, doing it in exactly the same way, and being often employed by my informant in collecting wild honey for him at so much a nest. In the same way there are said to be whites who can throw the boomerang better than any blacks. In fact, a white man, when he brings his superior faculties to bear on the matter, can always beat a savage in his own field, except perhaps at tracking.²

MELBOURNE.—Melbourne, in extent, wealth, and population, is the chief city not only of Victoria but of Australia. With the suburbs it contains 684,000 souls. The city has grown with great rapidity.

Till 1835 the foot of no white man had trodden on the ground on which Melbourne now stands, unless it was the foot of Buckley, the escaped convict, who lived for thirty years with a tribe of native savages.

Melbourne is not a city beautiful to the eye with the

¹J. Deniker, "The Races of Man" (1900).²H. N. Moseley, "Notes by a Naturalist" (1892).

charms of the landscape around it, as are Edinburgh and Bath and as Sydney, Hobart, and Dunedin. Though it stands on a river—a winding, rapid little river with varied banks—the Yarra-Yarra by name, it seems to have but little to do with the city. . . . Nor is Melbourne made graceful by neighbouring hills.

Still the internal appearance of the city is grand, the streets are wide, and large spaces are devoted to public gardens. The streets are all straight and at right angles, after the pattern of Philadelphia. The finest public buildings are the post-office, the town-hall, and the government house. The city has also its public library, university, and benevolent asylums.¹

HOT LAKES AND SPRINGS OF NEW ZEALAND

The hot lakes of the North Island have called forth unbounded admiration from visitors for the wild beauty of the scenery, the delicate tints of the natural crystal basins, and the refreshing luxury of the warm baths. The beautiful terraces of silica were utterly wrecked in 1886 by the same volcanic power to which they owed their origin. Froude gives a graphic description of this phenomenon in his "Oceana." He thus describes his first glimpse of the boiling springs:

Once more in the clear country, we saw in the distance a blue, singular range of mountains, while immediately underneath us, a thousand feet down, stretched a long, greenish lake with an island in the middle of it, and a cluster of white houses six miles off standing on the shore. The lake was Rotorua; the white houses were Ohinemutu, the end of our immediate journey. As we drew nearer to our destination both Ohinemutu and the district touching it seemed to be on fire. Columns of what appeared to be smoke were rising out of the Ti-tree bush, from the lake shore, and from the ditches by the roadside. We should have found the lake itself lukewarm if we could have dipped our hands in the water. At length we reached the foot of a steep bit of road, ascended it, and found ourselves at the door of our hotel, lodging-house, boarding-house—whatever we please to call it. There were two in the place, as at Cambridge, which of course were rivals. Stables, stores, and shops, were sprinkled about miscellaneously, and all round lay a primitive Maori village, consisting of perhaps a hundred or a hundred and fifty families, descendants of the warrior tribes who within living memory had fought fierce and bloody battles on these waters, and had cooked their prisoners at these natural fire-places.

The smoke which we had seen was steam rising from boiling springs—alkaline, siliceous, sulphuretted, and violently acid—not confined, too, exactly to the same spot, but bursting out where they please through the crust of the soil. You walk one day over firm ground, where the next you find a bubbling hole, into which if you unwarily step, your foot will be of no further service to you. These springs extend for many miles; they are in the island on the lake; they must be under the lake itself to account for its temperature. Across the water among the trees a few miles off, a tall column of steam ascends, as if from an engine. It arises from a gorge where a sulphurous and foul-smelling liquid, black as Cocytus or Acheron, bubbles and boils and spouts its filthy mud eternally. I have no taste for horrors, and did not visit this foul place, which they call Tikiteri. A Scotchman, they say, went to look at it, gazed breathless for a moment or two, and when he found his voice exclaimed, "By God, I will never swear again." Indeed the condition of things all about suggests the alarming nearness of the burning regions.²

THE MAORIS

The Maoris are the native inhabitants of New Zealand, and are of Polynesian origin. They are not the true aborig-

ines, but are thought to have displaced an earlier Melanesian or Papuan race. At the present time they do not number more than 50,000, most of whom are located in the North Island. A great many of the Maoris have been converted to Christianity. In many instances they have acquired considerable property, and in the neighbourhood of the settlements they are adopting European dress and habits. The Maoris of to-day are law-abiding, peaceable, but indolent.

The Maori warrior, before the English landed in New Zealand, was brave, honourable, and chivalrous; like Achilles, he hated liars "as the gates of Hell"; fire-water had not taught him the delights of getting drunk; and the fragments which survive of his poetry touch all the notes of imaginative humanity—the lover's passion, the grief for the dead, the fierce delight of battle, the calm enjoyment of a sunlit landscape, or the sense of a spiritual presence in storm or earthquake, or the star-spangled midnight sky. The germ of every feeling is to be found there which has been developed in Europe into the finest literature and art; but the Maori man and Maori woman, as we had seen them, did not seem to have derived much benefit from the introduction of "the blessings of civilization."

Their interest now is in animal sloth and animal indulgence, and they have no other; the man as if he had nothing else left to work for or to care for; the woman counting it an honour to bear a half-caste child. It is with the wild races of human beings as with wild animals, and birds, and trees, and plants. Those only will survive who can domesticate themselves into servants of the modern forms of social development. The lion and the leopard, the eagle and the hawk, every creature of earth or air, which is wildly free, dies off or disappears; the sheep, the ox, the horse, the ass accepts his bondage and thrives and multiplies. So it is with man. The Negro submits to the conditions, becomes useful, and rises to a higher level. The Red Indian and the Maori pine away as in a cage, sink first into apathy and moral degradation, and then vanish.¹

THE PAPUANS

(See Map. p. 74)

The great mass of the population of Papua² belongs to a race which is termed the Papuan. On the east coast the race is to some extent mixed, apparently with Polynesians; and on the north a similar mixture has taken place with Malays and people from the neighbouring islands. The purer Papuan stock occupies the remainder of the island.

Describing the typical Papuan, Mr. A. R. Wallace, by whom the question was carefully investigated, thus writes: "The colour of the body is a deep sooty-brown or black, sometimes approaching, but never quite equalling the jet black of some Negro races. It varies in tint, however, and is sometimes of a dusky brown. The hair is very peculiar, being harsh, dry, and frizzly, growing in little tufts or curls, which in youth are very short and compact, but afterward grow out to a considerable length, forming the compact frizzled mop which is the Papuan's pride and glory. The face is adorned with a beard of the same frizzly nature as the hair of the head. The arms, legs, and breast are also more or less clothed with hair of a similar nature." . . . The legs are long and slender as in the Australian aboriginal; "the face is somewhat flattish, the brows very prominent; the nose is large, rather arched and high, the base thick, the nostrils broad, with the aperture hidden, owing to the tip of the nose being elongated; the mouth is large, the lips thick and protuberant."

It is difficult to judge of the intellectual character of these people, as they are yet so little known. There is reason to believe, however, that they are not deficient in mental

¹Anthony Trollope, "Australia and New Zealand" (1873.)

²J. A. Froude, "Oceana" (1886).

¹J. A. Froude, "Oceana" (1886).

²Papua or British New Guinea is a British possession attached to the Commonwealth of Australia.

capacity. Although they wear little or no clothing, they pay great attention to personal appearance, especially in regard to the hair. Besides tattooing and painting the skin, they use ornaments for the nose, ears, and neck, and the teeth with some tribes are filed to a point. Their houses, constructed of bamboo, are often raised upon stakes, and even built in lofty trees. Not only the houses, but all their domestic utensils and weapons are decorated with carvings, as is also the case with their "prahus" or canoes, which are hollowed out of the trunks of trees. Their weapons are bows and arrows, spears, knives, and axes, the two latter being formed of stone. With regard to diet they are not nice; they eat the flesh of the wild pig, kangaroo, cuscus, cassowary, lizards, fish, and some kinds of large insects, as well as that of their domesticated animals, the pig, dog, and fowls. They know how to till the soil; and for vegetable food they have sweet-potatoes, yams, bananas, and sugar cane, to which may be added sago, coconuts, bread-fruit, mangoes, and other fruits which grow wild. Cannibalism has been attributed to them; but while it is certain that some tribes are addicted to the horrible practice, it has not been proved that the whole race is equally guilty. In point of moral character different reports have been given of the Papuans. Some represent them as fierce, vindictive, and treacherous, and often cruel even to their own children; others give them a very much better character. The practice of hunting men for their heads they share in common with other uncivilized races of the Malay Archipelago. The skulls are kept as trophies and proofs of bravery.¹

DRINKING KAVA WITH THE FIJIANS

What vodka is to the Russian, or toddy to the East Indian, kava (or kaava) is to the Polynesian. Kava is a solution in water of the chewed root of a species of pepper (*Piper methysticum*), and its mode of preparation is graphically described by the naturalist Moseley who visited the Fiji Islands in 1874.

Great satisfaction must be derived by Polynesians from the use of kaava, or it would not have been so universally upheld as a drink amongst them, nor would its use have become associated as it is with an elaborate ceremonial.

Usually, when the party with which I travelled in the large island of Fiji entered a village, the chief of the village made a request, as an offer of hospitality, that we would drink kaava with him; and we sat on his right and left hand at the head of the circle, or rather long loop, formed by those present on such occasions. At the bottoms of the two sides of the loop were seated the servants, or a few of the lower orders of the village, who crawled in crouching and cringing, expressing their humility before the chief in the most ostentatious manner, looking indeed, sometimes, as if they were really half afraid to come at all.

The kaava is prepared at the opposite end of the loop from that at which the chief sits. Young men with good teeth are chosen to do the chewing, and they pay great regard to cleanliness, rinsing their mouths and hands carefully with water before they commence their task. There is a considerable amount of knack to be acquired in the chewing of the kaava root. If it is well chewed very little saliva should be mixed with it, and it should be produced from the mouth in an almost dry round mass about as large as the mouth can contain.

The masses produced by several chewers are mixed with water and the infusion is strained, as has been often described. The bowl is placed in front of the chief. It is a four-legged wooden bowl cut out of a single block. It has a string of coconut fibre fastened to it underneath to a loop cut in the wood. By this string the bowl, when not in use, is hung up against the wall in the chief's house. When the prepared bowl is placed before the chief it must always be so turned that the string is directed away from him. The chief is served first in his own private coconut shell. Then the others present, in order of their rank and position of their

seats, receive shells full. We were always served immediately after the chief. It is the correct thing to drink off the coconut-shell full at a draught, and then spin the cup on its pointed end on the mat in front of one and say "Amava," or a word sounding closely like this, meaning, I was told, "it is emptied"; in fact, "no heel taps." After the chief has drunk, the company all clap their hands in token of respect.

A considerable quantity of kaava, of a strength such as that of the infusion ordinarily drunk at Fiji, must be taken in order to produce intoxication; but I have known a single coconut-shell of strong Fijian kaava make an Englishman, unaccustomed to the drink, feel a little dizzy and shaky about the legs. There is a very great difference in the strength of kaava, depending very much on whether the portion of the root employed is young or old, and of course on the amount of water employed.¹

SYNOPSIS OF AUSTRALASIA AND POLYNESIA

(See Maps, pp. 71-74)

COMMONWEALTH OF AUSTRALIA

Australia is the largest island and the smallest of the continents. It lies entirely within the southern hemisphere. The area of the Commonwealth of Australia is 2,974,581 square miles, and the population 4,465,800 (with full-blooded, civilized, aboriginals 4,485,000). The coast-line is approximately 8,805 miles; the greatest distance from east to west is 2,400 miles, and from north to south 1,971 miles.

From a physical standpoint the continent of Australia is divisible into an eastern and a western area, the former containing a regular coast-line with a good harbourage, roadsteads, rivers, and inland waterways, and a greater development of fauna and flora; the latter a broken coast-line with estuaries rather than rivers, and but little inland water communication. The whole continent is, roughly speaking, a vast, irregular, and undulating plateau, sometimes below the level of the sea, surrounded by a mountainous coast-line with frequent intervals of low and sandy shore on the north, west, and south. A large part of the interior, particularly in the west, consists of sandy and stony desert, covered with spinifex, and containing numerous salt-marshes, though reaches of grassland occur here and there.

The Commonwealth of Australia consists of the following states and territories: New South Wales, Victoria, South Australia, Queensland, Western Australia, Tasmania, the Northern Territory, Papua, and the Federal District.

CAPIES.—*Cape York*, the most northerly point; *North-West Cape*; *Cape Leeuwin*, in the southwest; *Cape Wilson*, the most southerly point; and *Cape Sandy*, in the east.

BAYS, GULFS, STRAITS, ETC.—On the north: *Timor Sea*, *Arafura Sea*, *Gulf of Carpentaria*, and *Torres Strait* between Australia and New Guinea. On the West: *Shark Bay*. On the South: *Great Australian Bight*, *Spencer Gulf*, *Port Philip Bay*, and *Bass Strait* between the mainland and Tasmania, On the east: *Botany Bay* and *Port Jackson*.

MOUNTAINS.—*Australian Alps* (highest summits, Mount Kosciusko, 7,328 feet, and Mount Townsend, 7,260 feet), *Blue Mountains*, *Liverpool Range*, and *New England Range* are different parts of the eastern highlands known as the *Great Dividing Range* running parallel with the east coast. Tasmania is an isolated part of the eastern highlands.

RIVERS.—The *Murray* in the southeast is the only river of importance; it is navigable for small steamers only in the rainy season. Its tributaries are the Murrumbidgee, Lachlan, and Darling. On the east coast are the Hawkesbury, Hunter, Clarence, Richmond, Brisbane, Mary, Burnett, and Burdekin; on the west, the Swan, Murchison, Gascoyne, Ashburton, Fortescue, De Grey, and Fitzroy; on the north, Drysdale, Ord, Victoria, and Daly; and the Roper, the Flinders, and Mitchell, which debouch into the Gulf of Carpentaria.

LAKES.—The lakes are expanses of brackish waters that spread or contract during rain or drought. In droughty season they are merely swamps and mud-flats. *Lake Torrens* in South Australia is the largest of these depressions. To the north is *Lake Eyre*, and to the west *Lake Gairdner*.

CLIMATE.—The climate is variable; long droughts sometime occur causing the death of thousands of sheep; while on the eastern slope there are often disastrous floods. The seasons are the reverse of ours. In the summer months (November, December, and January) all parts of Australia are hot, but not unhealthful. Sydney has a mean temperature of 70°F, in January and 50°F, in July; Melbourne has 66°F. and 50°F.; and Brisbane, 77°F. and 57°F.

VEGETATION.—The most characteristic trees are the *eucalypti* (gum trees) and *acacias*. The different species of eucalyptus—red gum, blue gum, stringy bark, iron bark, etc.—are greatly valued for their timber. A feature peculiar to Australia is *scrub* or *bush*. No grains or fruits are native to Australia; but those imported by the colonists (the vine, orange, peach, fig, etc., and such grains as wheat and maize) flourish in a manner that far surpasses European grains and fruits.

MINERALS.—Australia is rich in minerals, especially gold, copper, iron, tin, coal, and lead. *Gold* ranks with wheat and wool as one of the chief productions of the country. The chief gold fields are in Victoria (notably at Ballarat and Bendigo); in Queensland (near Charters Towers); in Western Australia (near Coolgardie and Kalgoorlie). More than half the total Australian supply of gold comes from Western Australia.

ANIMALS.—Almost all the animals are marsupials, that is, the female is provided with a kind of bag or pouch in which the young are carried by

¹W. Wilkins, "Australasia" (1888)

¹H. N. Moseley, "Notes by a Naturalist" (1892).

the mother until they are able to shift for themselves. The largest marsupial is the *kangaroo*. Among the carnivora is the native dog or *dingo*. The oddest animal is the *duckbill* or *platypus*, a small aquatic mammal having a bill like that of a duck, thick brown fur, and webbed feet. The *wombat* is a marsupial resembling a small bear. The *bandicoot* is a small rat-like marsupial. None of the native animals are of service to man; but the imported domestic animals thrive exceedingly.

The birds are distinguished by beautiful plumage; but they are songless. The *emu* and *cassowary*—birds of the ostrich type—are characteristic of Australia. Insects are numerous; most of the snakes are poisonous.

MANUFACTURES.—Australian manufactures are in their infancy. They are principally concerned with the production of articles of food, clothing, or housing (including furniture), and are mostly carried on with domestic materials for the needs of the home population.

STATES, CITIES, AND INDUSTRIES OF AUSTRALIA

(See Map, p. 71)

STATES AND INDUSTRIES	CHIEF CITIES OR TOWNS
NEW SOUTH WALES.—Agriculture, sheep farming, dairy farming; horse, cattle, and pig raising; frozen meat; mining (coal, copper, gold, silver, lead, zinc).	Sydney* (763,000), Newcastle (59,000), Broken Hill (28,000), Parramatta (13,000), Granville (11,000), Goulburn (10,000).
VICTORIA.—Agriculture, dairy farming, live stock raising, wool, mining (gold, tin, copper, coal, antimony), frozen meat, flour and biscuit manufactures.	Melbourne (684,000), Ballarat (42,000), Bendigo (38,000), Geelong (35,000), Castlemaine (7,000).
SOUTH AUSTRALIA.—Agriculture, especially wheat (the "granary of Australasia"); fruit-growing (oranges, olives, grapes, lemons, etc.); fruit drying; wool, mining (copper, gold, silver, lead, manganese), live stock raising, wine manufacture.	Adelaide (205,000), Port Adelaide (24,000), Port Pirie (10,000), Port Augusta.
QUEENSLAND.—Agriculture, live stock raising, wool, frozen meat, mining (gold, silver, copper, tin, coal), forestry.	Brisbane (162,000), Rockhampton (21,000), Townsville (17,000), Toowoomba (24,000), Ipswich (18,000), Charters Towers (17,000).
WESTERN AUSTRALIA.—Agriculture, live stock raising, forestry, wool, frozen meat, vine-growing, mining (gold, coal, copper, tin), pearl fishing.	Perth (107,000), Fremantle (21,000), Boulder (11,000), Kalgoorlie (9,000), Albany (4,000), Coolgardie (2,000).
TASMANIA.—Agriculture, live stock raising, fruit, forestry, wool, mining (gold, silver, tin, lead, copper).	Hobart (40,000), Launceston (25,000).
NORTHERN TERRITORY.—Pearl fishing, meat freezing, horse breeding.	Darwin (formerly Palmerston).
PAPUA.—Pearl fishing, gold mining, petroleum, tobacco, sugar.	Port Moresby, Samarai, Daru, Bonagal.
FEDERAL DISTRICT.	Canberra.†

*The capital is given first.

†Canberra, purchased in 1912 from the state of New South Wales, is to be laid out as the capital of the Commonwealth. Meanwhile Melbourne is the seat of government.

COMMERCE.—Since the establishment of the Commonwealth, customs duties are uniform, and trade between the different states is free. The Customs Tariff Act of 1914 gives preference to goods produced in and shipped from the United Kingdom as against the goods of other countries. The chief trade is with the United Kingdom. Among foreign countries United States ranks first; Japan comes next.

CHIEF EXPORTS.—Wool, wheat, gold, lead, copper, meat, butter, flour, leather, hides and skins, zinc concentrates; tin, silver, timber, coal, live stock, and pearl shell.

CHIEF IMPORTS.—Metal manufactures, cotton and linen piece goods, apparel; drugs, chemicals, and fertilizers; machines and machinery; woollens, silk piece goods, provisions, paper, timber, sacks and bags, oils, tobacco, jewellery, arms, and explosives, and agricultural implements.

COMMUNICATIONS.—On account of the lack of navigable rivers, the railways provide the chief means for the development of the country. Most of the railways are owned by the Government. There are over 20,000 miles of railroad opened. A trans-Australian railway from Port Augusta in South Australia to Kalgoorlie in Western Australia is under construction; while a trans-continent railway from north to south is contemplated.

There are more than 100,000 miles of telegraph wires.

GOVERNMENT.—The government is that of a Federal Commonwealth within the British Empire, the executive power being vested in the Sovereign (through the governor-general), assisted by a Federal Executive Council. The Commonwealth was inaugurated on January 1, 1901.

The Federal Parliament consists of a Senate and a House of Representatives. The Senate contains 36 members, six from each of the original states, elected for six years by universal suffrage. The House of Representatives, similarly elected for a maximum of three years, contains members proportionate to the population, with a minimum of five representatives for each state. Universal adult (male and female) suffrage obtains throughout the Commonwealth.

NEW SOUTH WALES.—New South Wales was first colonized as a British possession in 1788, and after progressive settlement a partly elective legislature was established in 1843. In 1855 "responsible government" was granted, the present constitution being founded on the Consolidating Act of 1902.

VICTORIA.—Victoria was originally known as the Port Phillip District of New South Wales, and was erected into a separate colony in 1851, with a partially elective legislature. In 1855 responsible government was conferred.

SOUTH AUSTRALIA.—South Australia was proclaimed a British province in 1836, and in 1851 a partially elective legislature was established. The present Constitution rests upon an Act of 1856.

QUEENSLAND.—Queensland was constituted a separate colony with responsible government in 1859, having previously formed part of New South Wales.

WESTERN AUSTRALIA.—Western Australia was first settled by the British in 1820, and in 1870 it was granted a partially elective legislature. The present constitution rests upon Acts of 1899 and 1911.

TASMANIA.—Tasmania, or Van Diemen's Land as it was called up to 1853, was first settled by the British in 1803 as an appendage to New South Wales, from which it was separated in 1825. In 1851 a partly elective legislature was inaugurated, and in 1856 responsible government was added.

NEW ZEALAND

The British dominion of New Zealand is distant about 1,200 miles south-east of the mainland of Australia, and consists of three main islands in the South Pacific Ocean, known as the North, South, and Stewart Islands, with several groups of smaller islands lying at some distance from the principal group. Area 105,000 square miles; population 1,050,000.

CAPES.—North Cape, Cape Farewell, Cape Palliser, East Cape, South-west Cape.

BAYS, GULFS, AND STRAITS.—In North Island: Hauraki Gulf, Bay of Plenty, Hawke Bay. In South Island: Tasman Bay, Pegasus Bay, Otago Harbour. Cook Strait divides the North and South Islands. Foveaux Strait divides the South Island and Stewart Island.

MOUNTAINS.—The Southern Alps traverse the west side of the South Island (highest summit, Mount Cook 12,349 feet), and slope down on the east to the Canterbury Plain. The highest summits in the North Island are Ruapehu (9,700 feet), Tongariro (7,000 feet), and Mount Egmont (8,270 feet).

RIVERS.—The principal rivers in the North Island are the Waikato and Wanganui; in the South Island are the Wairau in the north, the Waitaki and Clutha in the south, and the Buller on the northwest.

LAKES.—Taupo is a large central lake in the North Island. The volcanic region has a chain of hot lakes and springs which deposit silica. The celebrated "pink terraces" of Rotomahana, formed by the deposit of silica tinted with oxide of iron, were destroyed by volcanic action in 1886, but are again in process of formation. The South Island has many Alpine lakes of great depth.

CLIMATE.—The extremes of daily temperature vary throughout the year only by an average of 20°; London is 7° colder than the North Island and 4° colder than the South Island. The mean annual temperature of the whole Dominion for the different seasons is:—Spring, 55°; summer, 63°; autumn, 57°; and winter, 48°F.

VEGETATION.—Pines are abundant; the *kauri pine* is the most valuable tree in the islands. There are no native grains or fruits; those now cultivated were introduced by the colonists.

MINERALS.—Gold and coal are abundant; manganese, silver, and antimony are also profitably mined.

ANIMALS.—The fauna of New Zealand is very peculiar, due to the long separation of the islands from the neighbouring land-masses. Wingless birds are characteristic; the largest of these, the *moa*, is now extinct. A bird of this type is the *apteryx* or *kiwi*, a wingless running bird with short legs, a snipe-like bill, and long brown hair-like feathers. In the mountainous districts of the South Island is found the *kea*, a parrot-like bird which has acquired the habit of killing sheep by alighting on the animal's back and digging its beak through the skin and flesh till it reaches the fat about the kidneys. There are no marsupials, no wild carnivora, no snakes, and only one poisonous insect, the *kapito*, a small spider found on certain beaches.

INDUSTRIES.—New Zealand is a pastoral rather than an agricultural country, but sufficient wheat and oats are grown for domestic requirements. Much live stock is raised, the pastures of the South Island producing the celebrated sheep of the Canterbury Plain. Coal mining and gold mining (both alluvial and quartz) are important industries in many districts. Rope and twine are manufactured from native flax.

CHIEF TOWNS AND INDUSTRIES OF NEW ZEALAND

TOWN	POP. IN THOUSANDS	PRINCIPAL INDUSTRIES
AUCKLAND	119*	Glass, paper, rope, brick making, sugar refineries, shipbuilding.
CHRISTCHURCH	80*	Iron works, agricultural implements, meat refrigerating works.
DUNEDIN	64*	Woolen factories, railway shops, meat refrigerating works.
INVERCARGILL	16*	(Agricultural district.) Foundries, breweries, woolen mills, timber works.
NAPIER	12*	(Great agricultural and grazing district.) Wool, meat.
PALMERSTON NORTH	11	Agriculture.
TIMARU	11	Wool, flour, frozen meat, opals.
WANGANUI	15*	Wool, grain, dairy produce, refrigerating works.
WELLINGTON	75*	Foundries, refrigerating works, woollens, soap, candles, wax-matches, boots, rope, pottery.

*With suburbs.

CAPITAL.—Wellington, in the North Island; population 75,000.

COMMERCE.—The chief trade is with the United Kingdom and Australia. Among the foreign countries United States ranks first.

CHIEF EXPORTS.—Wool, frozen meat, butter and cheese, hides and skins, gold, tallow, kauri gum, coal, and timber.

CHIEF IMPORTS.—Clothing, iron and steel goods, machinery, sugar, oils, tea, fruit, manures, tobacco and cigars, bags and sacks, paper, printed books, and stationery.

COMMUNICATIONS.—There are about 3,000 miles of government railway lines open. There are 13,500 miles of telegraph line, with 58,000 miles of wire.

GOVERNMENT.—The west coast of the South Island was discovered by Abel Jansen Tasman, the Dutch navigator, in 1642. The islands were visited by Captain Cook, in 1769, and later in 1773, 1774, and 1777. The first settlement of Europeans was made in 1814, but no colonization took place until 1825. In 1840 British sovereignty was proclaimed, and in 1841 New Zealand was erected into a separate colony distinct from New South Wales. The executive authority is vested in a governor appointed by

the Crown, aided by a council of ministers, with a legislature of two houses.

DEPENDENCIES.—The dependencies of New Zealand include the *Antipodes Group*, *Auckland Islands*, *Bounty Islands*, *Campbell Island*—all uninhabited. *Chatham Islands* support large flocks of sheep and some cattle. *Cook Islands* produce oranges, bananas, and other tropical fruits, copra, coffee, pearl-shell, and hats. *Rarotonga* is the chief island. The *Kermadec Group*, the *Three Kings* (discovered by Tasman on the Feast of the Epiphany), with some uninhabited islets, also belong to New Zealand.

FIJI ISLANDS

The Fiji Islands form a British crown colony in the South Pacific, about 1,200 miles from Auckland, N. Z. There are about 250 islands in all, of which some are merely uninhabited islets and rocks. The two principal islands are *Viti Levu* ("Great Fiji") and *Vanua Levu* ("Great Land"). The climate is remarkably healthful for Europeans. The chief products are the bread-fruit tree, banana, peanuts, yams, coconut, sugar cane, rice, maize, copra, rubber, bêche-de-mer, and cotton. *Suva* is the capital (population 5,100).

POLAR REGIONS

(See Map, p. 119)

ARCTIC EXPLORATION.—The Frozen North has lured many voyagers, and many to their doom; but among the famous names that shine out in the history of polar exploration none is more inspiring than that of Sir John Franklin. Glorious, but pathetic, is the story of that ill-fated expedition, with its tale of sufferings nobly borne.

Arctic exploration had been somewhat at a standstill since the days when Henry Hudson had perished amid the ice and snows of the Far North. The primary object of these earlier expeditions was to find a northwest passage to India. Unsuccessful attempts were made by Sir John Ross, by Parry, the "Champion of the North," and by others. Franklin explored the north coast of Canada in the neighbourhood of the mouths of the Coppermine River which Hearne saw, and of the Mackenzie River which Mackenzie discovered in 1879.

LOSS OF FRANKLIN.—Owing to these combined efforts and to further work from the land side by Franklin's successors, almost the entire north coast of Canada from the neighbourhood of King William Island to Bering Strait became known before 1845. In that year the British admiralty made its final effort to find the northwest passage. Franklin volunteered for the command, and, when it was objected that he was sixty years old, he replied indignantly "No! no! only fifty-nine." This was Franklin's last voyage; for he and all his crew perished on or near King William Island (1847-1848). Relief parties swept the region for news of those who were lost, till at length skeleton after skeleton told its dreary tale.

"Not here! The white North has thy bones; and thou,
Heroic sailor-soul,
Art passing on thine happier voyage now
Toward no earthly pole."—TENNYSON.

One of the searchers, Sir Robert McClure, made the northwest passage from Bering Strait by sea along the south of Melville Island, but lost his ship on the way (1854).

Extensive explorations of Ellesmere Land and the Greenland coast were made by Greeley, who was sent out by the United States Government in 1881 to establish the American circumpolar station at Lady Franklin Bay.

NANSEN AND THE FRAM.—In 1893 the Norwegian scientist and explorer Fridtjof Nansen started out on his famous voyage in the *Fram* (i. e., "Forward"), a vessel of immense strength, pointed at bow and stern and having sloping sides, so that the ice-floes should tend not to crush but merely to slip beneath and lift her. Nansen's intention was to get the *Fram* fixed in the ice to the north of Eastern Siberia, and let her drift with the current which he believed sets across the polar regions. During the winter of 1894-1895 Nansen with one companion (Johansen) set out on foot, and after many hardships penetrated to within 225 miles

of the terrestrial pole. A vein of poetry runs through the published records of his travels. Here is an extract from his diary:

The wind is howling shrilly over the barren ice-plains; there are 33 degrees of cold, and summer, with its flowers, is far, far away. I would give a year of my life to hold them in my embrace; they loom so far off in the distance, as if I should never come back to them.

But the northern lights, with their eternally shifting loveliness, flame over the heavens each day and each night. Look at them; drink oblivion and drink hope from them: they are even as the aspiring soul of man. Restless as it, they will wreath the whole vault of heaven with their glittering, fleeting light, surpassing all else in their wild loveliness, fairer than even the blush of dawn; but, whirling idly through empty space, they bear no message of a coming day. The sailor steers his course by a star. Could you but concentrate yourselves, you too, O northern lights, might lend your aid to guide the wildered wanderer! But dance on, and let me enjoy you; stretch a bridge across the gulf between the present and the time to come, and let me dream far, far ahead into the future.¹

GREENLAND.—Meanwhile the Greenland coasts were being well explored. Nansen had traversed south Greenland from east to west (1888); Peary crossed north Greenland and rounded its northernmost point from the west (1901); and a Danish expedition under Erichsen, coming from the east, explored the last unknown strip of the coast (1906-1908). Thus a continental table-land 10,000 feet above the sea, almost as high as Tibet and as barren as Victoria Land, was dragged out of darkness into light.

The Duke of the Abruzzi made an attempt in 1900 to reach the pole, and got within 206 miles of the coveted goal. These attempts on the part of European explorers were made principally from the Asiatic side. Charles Hall and some other Americans made their attempts from the side of Smith Sound between the continent of Greenland and Ellesmere Land on the west of Greenland. Nares, Beaumont, and other English explorers followed in their train.

CROCKER LAND A MIRAGE.—About 120 miles northwest of Cape Thomas Hubbard, Peary sighted a supposed land which he named Crocker Land. Its existence was a prolific source of dispute among geographers and scientists, till the matter was finally set at rest by Donald B. MacMillan, who returned from a four years' expedition in August, 1917.

Peary was deceived by a mirage, said MacMillan, due to layers of air at different densities suspended close to the ice. Peary sighted this supposed land from a cliff 1,400 feet high. We mounted the same cliff, and for four days were deceived. Finally when the sun shifted it was no longer there. It was but a mirage, but so clear that you could see green hills covered with vegetation, rising high above the water. We sailed right over the supposed Crocker Land. . . . Don't think, however, that Peary was faking. It would deceive any man, no matter who he was.

¹Dr. F. Nansen, "Farthest North" (1897).

PEARY REACHES THE NORTH POLE.—The prize of three centuries of heroic striving was won at last by the American explorer, Commander Robert E. Peary, who for years had waged a persistent and scientific attack on the North Pole, and who finally planted the Stars and Stripes there on April 6, 1906.

The last march northward ended at ten o'clock on the forenoon of April 6. I had now made the five marches planned from the point at which Bartlett turned back, and my reckoning showed that we were in the immediate neighbourhood of the goal of all our striving. After the usual arrangements for going into camp, at approximate local noon, of the Columbia meridian, I made the first observation at our polar camp. It indicated our position as $89^{\circ}57'$.

We were now at the end of the last long march of the upward journey. Yet with the Pole actually in sight I was too weary to take the last few steps. The accumulated weariness of all those days and nights of forced marches and insufficient sleep, constant peril and anxiety, seemed to roll across me all at once. I was actually too exhausted to realize at the moment that my life's purpose had been achieved. As soon as our igloos had been completed and we had eaten our dinner and double-rationed the dogs, I turned in for a few hours of absolutely necessary sleep, Henson and the Eskimos having unloaded the sledges and got them in readiness for such repairs as were necessary. But, weary though I was, I could not sleep long. It was, therefore, only a few hours later when I woke. The first thing I did after awaking was to write these words in my diary: "The Pole at last. The prize of three centuries. My dream and goal for twenty years. Mine at last! I cannot bring myself to realize it. It seems all so simple and commonplace."

Everything was in readiness for an observation at 6 P. M., Columbia meridian time, in case the sky should be clear, but at that hour it was, unfortunately, still overcast. But as there were indications that it would clear before long, two of the Eskimos and myself made ready a light sledge carrying only the instruments, a tin of pemmican, and one or two skins; and drawn by a double team of dogs, we pushed on an estimated distance of ten miles. While we travelled, the sky cleared, and at the end of the journey, I was able to get a satisfactory series of observations at Columbia meridian midnight. These observations indicated that our position was then beyond the Pole.

Nearly everything in the circumstances which then surrounded us seemed too strange to be thoroughly realized; but one of the strangest of those circumstances seemed to me to be the fact that, in a march of only a few hours, I had passed from the western to the eastern hemisphere and had verified my position at the summit of the world. It was hard to realize that, in the first miles of this brief march, we had been travelling due north, while, on the last few miles of the same march, we had been travelling south, although we had all the time been travelling precisely in the same direction. It would be difficult to imagine a better illustration of the fact that most things are relative. Again, please consider the uncommon circumstance that, in order to return to our camp, it now became necessary to turn and go north again for a few miles and then to go directly south, all the time travelling in the same direction.

As we passed back along that trail which none had ever seen before or would ever see again, certain reflections intruded themselves which, I think, may fairly be called unique: East, west, and north had disappeared for us. Only one direction remained and that was south. Every breeze which could possibly blow upon us, no matter from what point of the horizon, must be a south wind. Where we were, one day and one night constituted a year, a hundred such days and nights constituted a century. Had we stood in that spot during the six months of the arctic winter night, we should have seen every star of the northern hemisphere circling the sky at the same distance from the horizon, with Polaris (the North Star) practically in the zenith.¹

¹R. E. Peary, "The North Pole" (1910).

ANTARCTIC EXPLORATION.—The Antarctic regions are of opposite character to the Arctic regions. In the Arctic there exists a polar basin surrounded by an almost complete ring of continental land formed by the northern parts of Europe, Asia, and America; in the Antarctic there is on the contrary a vast continental land mass surrounded by the ocean. Attempts to conquer the South Pole had been baffled by what seemed to be an unsurmountable ice-barrier. The first navigator known to have sailed within the Antarctic circle was Captain James Cook (1728-1779).

WILKES.—In 1840 two expeditions, one French and the other American, reached the southern seas. The French expedition under d'Urville found traces of what they believed to be a continuous coast from 136° to 142° E., to which they gave the name of Adélie Land. The United States expedition under Wilkes cruised westward along the ice-barrier toward Enderby Land nearly on the Antarctic circle. Wilkes's discovery of an Antarctic continent was made on January 19, 1840, one day before d'Urville sighted Adélie Land about four hundred miles farther west. The discovery was long doubted, and one of the charges against Wilkes at his court-martial was that he had fabricated this particular discovery; but the later explorations of Shackleton and Mawson (Yorkshiremen both) have fully corroborated Wilkes.

ROSS.—Sir James Ross in 1841-1842 reached the highest south latitude that was attained in the nineteenth century, discovering Victoria Land with its twin volcanoes Erebus (13,370 feet) and Terror.

SCOTT AND SHACKLETON.—Captain Robert Scott of the British navy started overland from near Mount Erebus in 1902; and Lieutenant (afterward Sir) Ernest Shackleton adopted the same base and similar methods, and reached a point $88^{\circ}23'$ S. lat., that is to say 97 miles from the South Pole (1908-1909). He found the whole region was a tableland rising to upward of 10,000 feet above the sea and without any living thing. Had the supply of food not given out, Shackleton would undoubtedly have reached the Pole.

SOUTH MAGNETIC POLE.—One of the main achievements of the Shackleton expedition was the attainment of the South Magnetic Pole by Professor David, Dr. (afterward Sir) Douglas Mawson, and Dr. Mackay. Its position was determined as $72^{\circ}25'S.$, $155^{\circ}16'E.$, at an altitude of 7,260 feet.

It is of interest to note that Sir James Ross, serving under his uncle Sir John Ross, was the first to take magnetic observations at the North Magnetic Pole, in 1831, and that Mawson, serving under Shackleton, was the first to take magnetic observations at the South Magnetic Pole, in 1909.¹

AMUNDSEN AND SCOTT REACH SOUTH POLE.—A year or two later Amundsen and Scott made a race for the South Pole. Amundsen gained the coveted distinction on December 14, 1911. Five weeks later the Englishman Scott reached the Pole (January 18, 1912). But the glory of the achievement was mingled with the news of Scott's tragic death on the return journey. He encountered terrible blizzards; provisions ran short, and progress was slow, one of the number, Captain Oates, suffering agonies from frost-bite. On March 17, Oates left the tent in a raging blizzard to meet certain death, hoping thereby to give his comrades a better chance. But his gallant sacrifice proved unavailing. Scott with his two remaining companions slowly and painfully struggled on a little longer, and on March 20 pitched their tent for the last time within eleven miles of one of their depots; but further effort was impossible. Scott's last mes-

¹W. S. Bruce, "Polar Exploration" (1911).

sage was dated March 25, 1912. Here the bodies were found by a search party on November 12th, and here the heroes were buried in their tent.

SIR DOUGLAS MAWSON.—The Australasian Antarctic expedition (1911-1914) led by Mawson made important scientific discoveries, and defined about 1,000 miles of the coast line of the Antarctic continent. Like the Scott expedition, the Mawson enterprise was not devoid of tragedy, but fortunately its leader was spared.

In company with Lieutenant Ninnis and Dr. Mertz, Mawson set out to explore a long stretch of coast when, on December 4, 1912, Ninnis with a dog-sledge carrying nearly all the provisions fell into a deep crevasse and was instantly killed. The two survivors pushed on; the six starving dogs were successively slain for food, and on January 7th Mertz succumbed. Mawson struggled on alone through the blinding blizzard, and after thirty-two days of the most terrible hardships he escaped from the very jaws of death and reached his base on February 8th. The *Aurora* had left only a few hours earlier. The vessel had already waited too long, and return was impossible; so for another year the explorer and a small party had to remain in the inhospitable wastes of Adélie Land. Polar adventure knows no more stirring experience than the following:

January 17th was another day of overcast weather and falling snow. Delay meant a reduction in the ration which was low enough already, so there was nothing to do but go on.

When I got away at 8 A. M. I found that the pulling was easier than it had been on the previous day. Nevertheless I covered only two miles and had to consider myself fortunate in not winding up the whole story then and there. This is what happened, following the account in my diary:

"Going up a long, fairly steep slope, deeply covered with soft snow, broke through lid of crevasse but caught myself at thighs, got out, turned fifty yards to the north, then attempted to cross trend of crevasse, there being no indication of it; a few moments later found myself dangling fourteen feet below on end of rope in crevasse—sledge creeping to mouth—had time to say to myself, 'so this is the end,' expecting the sledge every moment to crash on my head and all to go to the unseen bottom—then thought of the food uneaten on the sledge; but as the sledge pulled up without letting me down, thought of Providence giving me another chance." The chance was very small considering my weak condition. The width of the crevasse was about six feet, so I hung freely in space, turning slowly round.

A great effort brought a knot in the rope within my grasp, and, after a moment's rest, I was able to draw myself up and reach another, and, at length, hauled myself on to the

overhanging snow-lid into which the rope had cut. Then, when I was carefully climbing out on to the surface, a further section of the lid gave way, precipitating me once more to the full length of the rope.

Exhausted, weak, and chilled (for my hands were bare and pounds of snow had got inside my clothing) I hung with the firm conviction that all was over except the passing. Below was a black chasm; it would be but the work of a moment to slip from the harness, then all the pain and toil would be over. It was a rare situation, a rare temptation—a chance to quit small things for great—to pass from the petty exploration of a planet to the contemplation of vaster worlds beyond. But there was all eternity for the last and, at its longest, the present would be but short. I felt better for the thought.

My strength was fast ebbing; in a few minutes it would be too late. It was the occasion for a supreme attempt. New power seemed to come as I addressed myself to one last tremendous effort. The struggle occupied some time, but by a miracle I rose slowly to the surface. This time I emerged feet first, still holding on to the rope, and pushed myself out, extended at full length, on the snow—on solid ground. Then came the reaction, and I could do nothing for quite an hour.

The tent was erected in slow stages and I then had a little food. Later on I lay in the sleeping-bag, thinking things over. It was a time when the mood of the Persian philosopher appealed to me:

Unborn To-morrow and dead Yesterday,
Why fret about them if To-day be sweet?

I was confronted with this problem: whether it was better to enjoy life for a few days, sleeping and eating my fill until the provisions gave out, or to "plug on" again in hunger with the prospect of plunging at any moment into eternity without the great luxury and pleasure of the food. And then an idea presented itself which greatly improved my prospects. It was to construct a ladder from alpine rope; one end of which was to be secured to the bow of the sledge and the other carried over my left shoulder and loosely attached to the sledge harness. Thus, if I fell into a crevasse again, it would be easy for me, even though weakened by starvation, to scramble out again by the ladder, provided the sledge was not also engulfed.

Notwithstanding the possibilities of the rope ladder, I could not sleep properly at all; my nerves had been so overtaxed. All night considerable wind and drift continued.

On the 19th it was overcast and light snow was falling. I resolved "to go ahead and leave the rest to Providence."

As they wallowed through the deep snow my feet and legs kept breaking through into space. Then I went right under, but the sledge was held back and the ladder "proved trumps." A few minutes later I was down again, but I emerged again without much exertion, half-smothered with snow. Faintness overcame me and I stopped to camp, though only a short distance had been covered.¹

CENTRAL AMERICA AND WEST INDIES

(See Maps, pp. 92, 93, 113)

CENTRAL AMERICA.—The six small republics of Central America—Guatemala, Salvador, Honduras, Nicaragua, Costa Rica, and Panama—with the British crown colony of British Honduras, form a kind of land-bridge between North and South America. The whole country is a fertile plateau which descends to the oceans on either side by a series of terraces. In this region all kinds of tropical plants flourish; for Nature has been lavish in her products. There hunger is easily satisfied; life is mainly out-of-doors; and human habitations are low and of unstable character.

Through the courage and enterprise of Americans, unhealthy tracts have been made healthful, and the conquest of tropical disease stands to the abiding credit of the men and of their nation. Central America is now of peculiar interest to Americans, for a strip of United States territory runs

through the centre of Panama, marking the greatest engineering achievement of the century—the Panama Canal.

AMERICAN CONQUEST OF THE TROPICS.—In all of the centuries from the discovery of America down to a comparatively few years ago, the hundreds of miles of coast from Colón to Belize and from Panama City to Salina Cruz have remained practically uninhabited. There are unmistakable signs that thousands of years ago other races thrived and reared great cities and splendid palaces in the fertile valleys along both coasts, but it is certain that their conquerors were unable to master the problems of sanitation and were compelled to take refuge on the high plateaus where now stand the capitals and cities of their descendants.

¹Sir Douglas Mawson, "The Home of the Blizzard" (1914).

No words can describe the horrors and dangers of the few squalid villages which once lay on the water edge of these jungles. Nature had infested these wastes with most of the enemies of mankind, but the ignorance and indifference of those who clustered there added new and more deadly menaces. The normal death-rate of a typical Central American seaport, in the years prior to the advent of the banana industry, was not less than 150 annually out of a population of 1,000! This is fully ten times what it is now. It was almost sure death for an unacclimated foreigner to remain a week in these unsanitary surroundings. The wealthy citizen of Costa Rica or Guatemala who wished to go to London, Paris, or New York on business or pleasure approached the Pacific port from which he was to sail in fear and trembling, and thousands who longed to make such trips could not be induced to take the risk.

In 1871 there was not a mile of railroad in all of Central America, with the exception of a short line having its terminal at Puerto Cortez, Honduras. There were no dependable foot or wagon roads from its capitals to either coast. In 1871 there was no steamship service from the United States or from any port of the world to any port in Central America. There probably was no inhabited spot on earth more isolated. These republics were cut off not only by the sea, but also by barriers of pestilential lands, which the natives dreaded to cross and which the outside world could not enter.

To-day these former wildernesses constitute one of the most productive agricultural sections of the globe. To-day the ships from all the world enter the beautiful harbours of Central America and land their passengers in ports which are as sanitary as those of Massachusetts. To-day most republics in Central America are served with well-managed and modernly equipped railway lines. The day is near at hand when one will be able to travel by rail from New York or San Francisco to Panama City in safety and luxury.

Who performed these miracles?

They were wrought by American citizens who had the imagination, the courage, and the ability to attack and conquer the countless dangers and problems of the tropical wilderness, and who did this through the organization of enterprises which helped lay the foundations of the United Fruit Company.¹

A VISIT TO THE CANAL ZONE.—Colón is the leading port of entry in the tropics for the United Fruit Company. From two to half a dozen and sometimes more of its ships can be found at the docks of Colón. The Company has under construction a system of extensive and modern docks and buildings in Cristobal, a contiguous part of Colón, but in the territory of the administration of the Canal Zone. The cities of Colón and Panama proper are under the jurisdiction of the Republic of Panama, with certain restrictions mutually agreed on and observed.

There is much which is attractive in Colón and Panama City and along the Canal Zone, and the visitor can spend many days with profit along the Isthmus now spanned by the great Canal. The city of Panama is distinct in type from any town in Central America or along the north coast of South America. Panama City is an architectural expression of the Spaniard in South America. The Republic of Panama is now a part of Central America, but it must be kept in mind that Colón and Panama City were founded and reared by men whose traditions and arts were those of South America. Spanish blood and Spanish temperament dominated in the construction of these cities, and Panama City in particular stands as an interesting and pleasing type of urban construction for which the architecture of Castile is responsible, and which is blended only faintly with the conceptions of the native Indian races. The Indian dominates in all other parts of Central America and Mexico, and in many sections of South America, but Panama City typifies the pleasing attempt of Spanish art to master the architectural requirements of the tropics.¹

¹F. U. Adams, "Conquest of the Tropics" (1914).

SYNOPSIS OF CENTRAL AMERICA

(See Map, p. 113)

Central America is a mountainous isthmus separating the Caribbean Sea from the Pacific, narrowing and becoming lower at its junction with South America. The greatest altitudes are on the Pacific coast, where there are many active and extinct volcanoes. The principal lowlands are in Yucatan peninsula and the alluvial plains on the Atlantic coast. The largest lake is *Lake Nicaragua*, from the floor of which rises an active volcano; it is drained by the San Juan to the Atlantic. The temperature varies with the altitude, the climate among the hills being well adapted for Europeans.

Central America consists of the six republics of Guatemala, Salvador, Honduras, Nicaragua, Costa Rica, and Panama (until 1903 part of Colombia); while on the east of Guatemala is British Honduras, a colony of Great Britain.

GUATEMALA

Guatemala, the most northerly of the Central American states, has an area of 47,424 square miles and a population of 2,000,000. The republic is divided into 23 departments and is traversed from west to east by a mountain chain, containing several volcanic summits rising to 13,000 feet above the sea; earthquakes are frequent. The country is well watered by numerous rivers; the climate is hot and unhealthy near the coast, but more temperate and salubrious in the higher regions.

The chief products are coffee, bananas, sugar, timber, rubber, and hides. Minerals are found, but are little worked. About 450 miles of railway are open. There are 3,750 miles of telegraph line in operation. (*New Guatemala* (pop. 125,000) is the capital. The chief ports are Champerico and San José on the Pacific; Livingston and Puerto Barrios on the Caribbean.

SALVADOR

Salvador extends along the Pacific coast for 170 miles, with a general breadth of 43 miles; area 7,225 square miles; population 1,161,000. The republic is divided into fourteen departments. The chief products are coffee, indigo, tobacco, sugar, silver balsam (known as balsam of Peru), rice, hides, cedar, and fustic (a valuable dyewood). *San Salvador* (pop. 66,800) is the capital. A British railway about 100 miles in length connects *Acajula* with the capital and *Santa Ana* (pop. 48,000), the coffee centre, and another line (40 miles) runs from the port of *La Unión* to *San Miguel*. Earthquakes are frequent, and the capital (now rebuilt) was entirely destroyed by one in 1873; but the country has of late years experienced comparative immunity.

HONDURAS

Honduras, the middle state of Central America, has an area of 44,275 square miles, with a population of 553,000. It has a coast-line of nearly 400 miles on the Caribbean Sea, but only about 40 miles on the Gulf of Fonseca. Honduras is traversed by the Cordilleras. The soil is very fertile. The chief products are mahogany, cattle, fruit, cotton, tobacco, sugar, rubber, rice, indigo, coffee, hides and skins, sarsaparilla, fustic, cedar, and Lima wool. The mineral wealth is great; while the forests are practically inexhaustible, but there is a lack of communications and transport. *Tegucigalpa* (pop. 29,000) is the capital. The chief ports are *Amapala* on the Pacific, and *Trujillo*, *Puerto Cortés*, *Omoa*, *Roatán*, and *La Ceiba* on the Caribbean Sea.

NICARAGUA

Nicaragua is the largest state of Central America, with a long seaboard on both the Atlantic and the Pacific; area 51,660 square miles; population 600,000, of whom about three-quarters are mixed blood and the rest Indians, besides the Mosquitos, who are mostly in a savage state. The chief products are coffee, bananas, rubber, gold, hides, and cattle. German capital is largely invested in coffee estates. There are 172 miles of railway open, and 1,600 miles of telegraph. *Managua* (pop. 35,000) is the capital. Other towns are *León* (65,000), *Granada* (20,000), and *Matagalpa* (16,000).

COSTA RICA

Costa Rica lies between Nicaragua and the Republic of Panama; area 23,000 square miles; population 420,000. The chief products are bananas, coffee, gold, and silver, hardwoods, cacao, rubber, hides, and skins. About 400 miles of railroad are open, and about 1,700 miles of telegraph. *San José* (pop. 35,000) is the capital. The chief ports are *Limón*, on the Atlantic, through which the whole of the important banana trade with the United States and England is done, as well as the greater part of the other exports and imports, and *Puntarenas* on the Pacific.

PANAMA

(See Map, pp. 114-115)

Panama formed one of the nine departments of Colombia, but revolted in 1903 and established a separate government. The area of the republic is 31,890 square miles; the population is about 400,000. A railway 47 miles in length connects the two oceans. The isthmus, which long presented a barrier to trade, is now intersected by the Panama Canal. A strip of territory 10 miles wide known as the *Canal Zone* was granted to the United States for the purposes of the Panama Canal; it does not include the cities of Panama and Colón. *Panama* (pop. 60,000), on the Pacific coast, is the capital. *Colón* (pop. 26,000) is the chief city on the Atlantic coast. The chief product is the banana. Tobacco and sugar are growing in importance. Cattle-raising is carried on, and hides are exported. See p. xxxi.

BRITISH HONDURAS

British Honduras in Central America is 174 miles in length and 68 miles in breadth. It is bounded on the north by the Yucatan peninsula, on the west and south by Guatemala, and on the east by the Caribbean Sea. Its

area is about 8,598 square miles with a population of 41,000. The climate generally is damp and hot, but not unhealthful. The country consists chiefly of forest, with savannas and so-called "pine-ridges," which are open sandy plains covered with a wiry grass and dotted with pine trees, affording fair runs for cattle. The ground is level and swampy along the coast-line. The chief products are mahogany, logwood, and other natural woods, sugar, rubber, cacao, and fruit. Coco trees grow wild in the bush. The country is governed as a British crown colony. *Belize* (pop., 11,000) is the capital.

WEST INDIES

(See Maps, pp. 92, 93)

The West Indies, so named in 1492 by Columbus, who believed the islands to form the western limits of India, are a number of islands and islets which separate the Atlantic from the Gulf of Mexico and the Caribbean Sea. The archipelago is divisible into three main groups: (1) *Greater Antilles*, which contain the largest islands, *Cuba* and *Haiti* (comprising the republics of Haiti and Dominican Republic) being independent; *Jamaica* and its dependencies, British; and *Porto Rico*, a dependency of the United States. (2) *Bahamas*, which are entirely British. (3) *Lesser Antilles*, which are divided among the United Kingdom, France (*Guadeloupe*, *Martinique*, and part of *St. Martin*), the Netherlands (*Curaçao*, *Buen Ayre*, *Aruba*, *St. Eustatius*, *Saba*, and part of *St. Martin*), Venezuela, and the United States (*Porto Rico* and the *Virgin Islands*). The total area of the archipelago is nearly 100,000 square miles, of which 72,000 square miles are independent, 12,300 British, 3,800 United States, 1,350 French, 430 Netherlands, and 90 Venezuelan.

The staple product is *sugar*, though owing to the competition of European beer sugar and to other causes it is not so great a source of wealth as formerly. Molasses and rum, spices, arrowroot, and forest products are also profitable. The trade of the archipelago is principally with the United States. For *Cuba*, *Haiti*, and *Dominican Republic*, see below.

BRITISH WEST INDIES

ISLANDS	CAPITAL	AREA (sq. miles)	POPULATION
GREATER ANTILLES:			
Jamaica	Kingston	4,450	855,600
Cayman Islands	Georgetown	225	5,600
BAHAMAS:			
Bahamas	Nassau	4,400	56,000
Turks and Caicos	Grand Turk	170	5,700
LESSER ANTILLES:			
<i>Leeward Islands</i>			
Barbados	Bridgetown	166	196,000
<i>Windward Islands</i>			
Antigua	St. John's	108	31,500
Barbuda	.....	75	750
St. Christopher or St. Kitts	Basseterre	68	26,000
Nevis	Charlestown	50	13,000
Anguilla	.....	35	4,000
Dominica	Roseau	300	34,000
Montserrat	Plymouth	33	12,200
Virgin Islands	Road Town	53	5,600
<i>Windward Islands:</i>			
Grenada	St. George's	134	67,000
St. Lucia	Port Castries	233	48,700
St. Vincent	Kingstown	150	42,000
<i>Trinidad and Tobago:</i>			
Trinidad	Port of Spain	1,750	309,500
Tobago	Scarborough	114	20,750
Various Islets	.....	31	.....
Totals		12,550	1,733,900

CUBA

(See Map, p. 95)

Cuba, the "Pearl of the Antilles," has an area of 44,178 square miles and a population of 2,272,000. It is the largest island of the West Indies, and is nearly as large as Pennsylvania. About two-thirds of the inhabitants are of Spanish descent. Cuba is mountainous in the east, hilly in the centre, and generally level in the west and southwest. The coasts are rocky; but there are many fine harbours. The chief products of the island are sugar and tobacco. Timber and fruits also are increasingly exported, and there are valuable iron, manganese, and copper mines.

The principal mining districts are in Oriente province, where the Sierra Maestra was for centuries the largest copper-producing centre in the world. Of non-metallic minerals petroleum and asphalt are found, and the former is exploited to some extent.

The only manufactures of any importance are connected with the tobacco and sugar cane industries, cigars and cigarettes being made in great quantities in the capital, and sugar, rum, and whisky in the neighbourhood of the plantations. Almost all the imports are manufactures. The chief trade is with the United States.

There are 2,500 miles of railway, and over 5,000 miles of telegraph. *Havana* (pop., 297,000)—called in Spanish, San Cristobal de la Habana—is the capital and largest city of Cuba. It lies almost due south of Key West, Florida, from which it is distant 93 miles. Havana is the chief commercial centre of the West Indies. Other towns are *Santiago* (45,000), *Matanzas* (37,000), *Cienfuegos* (30,000), *Camaguey* (29,000), *Cardenas* (24,000). The Isle of Pines (*Isla de Pinos*) also belongs to Cuba.

HAITI

(See Map, p. 93)

The republic of Haiti is the western or French portion of the island of Haiti, which next to Cuba is the largest of the West India Islands. The area of the republic is 10,000 square miles; the population, 2,029,000. The mountains are thickly wooded, and capable of cultivation almost to their summits. Its harbours, especially Port-au-Prince, offer great facilities to foreign commerce. The chief products are coffee, cotton, cocoa, sugar, logwood, gums, and honey. Its chief trade is carried on with the United States, the British Empire, France, and Germany. Its commercial prosperity has been almost annihilated by repeated revolutions. *Port-au-Prince* (pop., 100,000) is the capital.

DOMINICAN REPUBLIC

(See Map, p. 93)

The Dominican Republic, or Santo Domingo, is the oldest European settlement in America, having been founded in 1496 by Bartolomeo Columbus, who named it *Hispaniola*. The republic has an area of 18,755 square miles, with a population of about 700,000. Sugar and cocoa are the most important crops; the other products are coffee, tobacco, mahogany and other woods, wax, honey, bananas, hides, fustic, logwood, and turtle-shell. The bulk of the trade is in the hands of United States. There are 150 miles of railway. *Santo Domingo* (pop., 25,000) is the capital. The country is in a very backward condition, and its natural resources are undeveloped. The customs duties are the main source of revenue, and are controlled by the United States Government.

For United States possessions in the West Indies, see under *United States*, p. 340.

SOUTH AMERICA

(See Maps, pp. 122-128)

ITS DARKENED PAST.—South America everywhere bears the impress of the Latin races to whom the world is indebted for the discovery and exploration of the New World. From the time of Columbus, who reached the mouth of the Orinoco in his third voyage (1498), a stream of Portuguese and Spanish adventurers set across the Atlantic to the land of romance and fortune. Pious men were no less eager to visit the idolatrous millions; while fierce and imperious spirits followed in their train, eager to show their Christian ardour by shedding blood like water. Imagination ran riot. Grave hidalgos, learned geographers, and veteran soldiers were drawn to the land where gold and precious stones were thought to be as plentiful as the pebbles on the seashore. Thousands left their bones in the trackless forests or on barren wastes over which they had toiled in search of El Dorado. Every vessel that returned to Europe brought specimens of real riches, so it is no wonder that their heads were turned. But the toils and hardships of these early adventurers are as nothing when we recall their inhumanity. The Spaniards outdid the savages in their deeds of cruelty as they hacked

their way through flesh and blood to the pictured gold beyond.

The continent was overrun with amazing rapidity. Spain and Portugal divided practically the whole of South America between them, Portugal taking Brazil while Spain took the remainder. The history of colonization is blackened by the deeds of the Spaniards in the New World. The natives were enslaved and treated with fendish inhumanity by their Spanish taskmasters. It is a pitiable story of wrongs, tortures, and sufferings. The very cannibals were known to loathe the flesh of such monsters in human shape.

But while enslaving others, the Spanish settlers took the first opportunity to throw off the royal yoke themselves; and early in the nineteenth century, when Spain was in difficulties from Napoleon's conquests, the colonies proclaimed their independence. The revolution in Portuguese Brazil took a different form, issuing as a constitutional monarchy with the title of empire, which toward the end of the century transformed itself into a republic. But such republics without republicans are a mere caricature of democracy, and it is

not surprising that the southern republics have been torn by revolutions, the ballots turning readily to bullets, changes of government to massacres, presidents to dictators, and dictators to tyrants.

ITS BRIGHTER FUTURE.—Yet South America is pregnant with economic possibilities. Its natural resources are enormous. We are apt to forget that it is South America which has given the world so many useful products—the potato, pineapple, tomato, cocoa, maize, tobacco, the guava and other fruits, and the manioc or cassava from which we get tapioca. But as yet the vast resources of the continent have been but skimmed. The future is full of promise. American and European capital is being more and more attracted; and when the whole of the South American republics have become republican in fact as well as in name, and when security of life and property is fully assured, then will these Latin republics take their place among the great commercial nations of the world. The *A. B. C. Republics* (Argentina, Brazil, and Chile) have already travelled far on this desirable path, and their example and influence should do much to foster a similar worthy ambition on the part of the sister republics.

A LAND OF POSSIBILITIES.—We North Americans, who live in a vast continent that lies nearly all in the temperate and cooler zones, scarcely realize that South America is four-fifths tropical. Fields of wheat and oats are familiar to us; but in South America are scarcely seen outside of Argentina and Chile, except in high, cool valleys. South America might be called a banana country.

Bananas grow from Paraguay to Mexico; wheat and oats flourish only in the tapering tip of the southern continent; and this gives to Argentina and Chile a peculiar interest among South American countries as the homes of vigorous, energetic peoples competent to rule themselves. To Argentina and Chile we may add Uruguay and the highlands of southeastern Brazil, and also the limited areas of the tropical Andes, whose altitude gives them cool climates. The rest of the continent, the vast interior, is the land of the siesta—the land to be developed and administered by peoples of the temperate zones.

The great task and obligation of Argentina, southern Brazil, and Chile—the *A. B. C.* powers—is to guide the development of the tropical Americas, through the exercise of wise statesmanship, toward stability, peace, and prosperity. Rio de Janeiro, on the Atlantic coast, and Antofagasta, on the Pacific, mark the southern limit of the tropics, and thence southward the southern continent narrows rapidly to the point of Cape Horn. The equivalent distance in North America is from Florida to Labrador, or from oranges to reindeer moss. Florida and Rio are both renowned for their oranges, and Cape Horn shares with Labrador a most inhospitable reputation; but it is more like Scotland than Labrador.

The southernmost land, tapering southward between the oceans, is nowhere so cold as the broad expanse of North America is in similar latitude, and Tierra del Fuego, a region of bogs, fogs, and snow squalls, is a congenial home for Scotchmen and long-wooled sheep.

North of the Rio de la Plata and between the Atlantic and the Paraná-Paraguay basin stretches the most beautiful and healthful region of semi-tropical South America. Here are the coffee plantations of São Paulo, Brazil, the most productive of the world; here the German settlements of Santa Caterina and Rio Grande do Sul constitute the isolated Teutonic colonies; here Uruguay and Paraguay form buffer states between the great rivals, their neighbours, and here are included the rich Argentine Commonwealths of Entre Rios and Corrientes.

Equivalent in area to the region which stretches northwest from the Alleghanies to the Mississippi and the Great Lakes, equal to the States of Alabama, Mississippi, Tennessee, Kentucky, Ohio, Indiana, and Illinois in extent, beautiful in upland landscape of verdant hills and valleys, this territory

invites a dense population whose prosperity would be assured under a good government.

But divided as it is by arbitrary political boundaries, misgoverned with various degrees of misgovernment, it lies inert. The failure of individual and governmental initiative, the isolation of the frontier, where weak settlements face the forest, the lack of roads and railroads leave the interior still a part of the wilderness.¹

SYNOPSIS OF SOUTH AMERICA

(See Maps, pp. 120-128)

South America forms the southern half of the New World; it is joined to North America by the Isthmus of Panama. It is a vast peninsula of a somewhat triangular form, with an area of 6,600,000 square miles—nearly twice the size of Europe. Its greatest length is 4,500 miles, and its greatest breadth 3,200 miles. South America is bounded on the north by the Caribbean Sea, on the east by the Atlantic, on the south by the Antarctic, and on the west by the Pacific.

COAST-LINE. Its coast-line is very short in comparison with the size of the continent, and is estimated at 12,000 miles—about half that of North America.

CAPIES. *Point Gallinas*, the most northerly point of South America; *Cape St. Roque* and *Cape Frio*, on the east of Brazil; *Cape Horn*, the most southerly point of South America; *Cape San Francisco* and *Point Pariña*, on the west.

INLETS.—*Gulf of Darien* and *Gulf of Venezuela* on the north; the mouths of the *Amazon* and the *Plata*, *Blanca Bay*, *San Matias Gulf*, and *Gulf of St. George*, on the east; *Gulf of Panama*, *Gulf of Guayaquil*, and *Gulf of Peñas* on the west.

There is only one strait—the *Strait of Magellan* between the mainland and Tierra del Fuego.

ISLANDS.—The chief group is *Tierra del Fuego* ("Land of Fire") on the south. The largest island is *Marajo* at the mouth of the Amazon. The *Falkland Islands* lie northeast of Tierra del Fuego. The *Galapagos Islands* ("Turtle Islands") are a volcanic group on the equator, off the west coast.

BUILD.—The build of the continent consists of a great mountain chain in the west, one long plain (from the mouth of the Orinoco to the mouth of the Plata), and minor ranges in the east. The two principal slopes are a short steep slope on the west to the Pacific, and a very long and gradual slope on the east toward the Atlantic.

South America possesses certain features in common with North America: (1) Both continents have their greatest length from north to south. (2) Both continents taper to the south. (3) The west coasts of both continents are very regular and almost straight. (4) The highest ranges of mountains in both lie in the west—and very far to the west. (5) The subordinate ranges in both lie in the east. (6) Each has its short slope to the west, and its long slope to the east. (7) The largest rivers in each flow to the east. (8) Both have vast plains and enormous river-basins.

MOUNTAINS.—There are three highlands, the great *Cordillera*, or *Andes Mountains*, extending the whole length of the western coast, and the *Guiana Highlands* and the *Brazilian Highlands* in the east.

The *Andes* are remarkable for their continuity; their great height—an average about 12,000 feet; the parallelism of their chains, when they are double or triple; their mountain-knots; and the large number of volcanoes. The *Andes* consist of three main sections: (1) the *Southern Andes* (highest summit, *Aconcagua*, 23,080 feet) is a single chain which runs up to the Tropic of Capricorn; (2) the *Central Andes* (highest summits, *Illampu*, 21,500 feet, *Illimani*, 21,192 feet) consists of two parallel chains, which run up to about 10° S. lat.; and (3) the *Northern Andes* (highest summits, *Chimborazo*, 20,498 feet, *Cotopaxi*, 19,613 feet, and *Antisana*, 19,335 feet) forms a triple range.

The broadest table-land is that of Bolivia, in which is situated *Lake Titicaca*, at an altitude of 12,500 feet.

PLAINS.—The whole continent from the mouth of the Orinoco to the mouth of the Plata may be regarded as one vast plain. But this plain may be divided into three parts: the *Orinoco Plain*—the most level parts of which are called the *Llanos*; the *Plain of the Amazon* (or the *Selvas*); and the *La Plata Plain*, the most level parts of which are called *Pampas*. There is only one desert of any size in South America—the *Desert of Atacama*, on the Pacific coast.

RIVERS.—The three greatest rivers of South America are the *Orinoco*, the *Amazon*, and the *Plata* or *Plate*.

The *Orinoco* is the river of the north; it is 1,550 miles long and falls into the sea by a mighty delta. Its basin contains nearly 300,000 square miles. It is connected with the Rio Negro by a natural canal.

The *Amazon* is the river of the centre; it is the largest river in the world, and has the largest basin (2,000,000 square miles—more than half of Europe). It is about 3,400 miles in length. The Amazon has numerous tributaries, which are themselves great rivers. Its chief northern tributary is the *Rio Negro*; its chief southern tributary is the *Madeira*. The mouth of the Amazon is 200 miles wide, and its current is felt 150 miles out at sea.

Owing to the melting of the snows in February, and the rains which mainly occur at this time on the slopes of the Andes, the Amazon has a marked flood season, reaching its maximum in June, when it overflows its banks.

In 1913-14 Colonel Roosevelt travelled over a great part of the Amazon regions of Brazil, making valuable contributions to geographical and scientific knowledge. The maps of this region were proved to be most inaccurate. Roosevelt discovered a hitherto unknown tributary of the Amazon, and this new river was named the *Theodoro* by the Geographical Society at Washington.

¹Bailey Willis, in the *National Geographic Magazine* (August, 1916).

The *Rio de la Plata*, or *River Plate*, is in fact only the gulf-like estuary of the three great rivers Paraguay, Parana, and Uruguay. It is the widest river in the world, and gives more water to the ocean than any other South American river except the Amazon.

Among the minor streams, the *San Francisco* is the most important.

CLIMATE.—Two thirds of South America lie within the tropics, and three fourths lie within the region of the trade winds. South America may be called the continent of moist heat. The cooler parts are to be found in the high lands and in the narrow triangular part which lies south of 30°. See *Climate Map of South America*, pp. 122, 123.

VEGETATION.—The vegetation is luxuriant. The most characteristic plants are *palms*, *flowering trees*, and *lianas*. The most valuable forest trees are the *greenheart* and the *mora*—both excellent for shipbuilding. The *cinchona tree*, the bark of which yields quinine, is found on the Andean slopes; and the largest lily in the world—the *Victoria Regia*—floats on the quiet lakes of the Amazonian labyrinth of waters. The *sugar cane*, the *coffee plant*, the *cacao tree*, the *coca*, the *manioc*, *tobacco*, *bananas*, and other tropical and sub-tropical fruits are produced in great abundance. The vegetable wealth of South America infinitely surpasses that of any other continent. See *Vegetation Map of South America*, p. 124.

MINERALS.—South America is rich in minerals. Along the line of the Andes, silver, gold, copper, tin, and mercury are found. In Bolivia are the celebrated silver mines of Potosí. The continent is also rich in precious stones; diamonds are found in Brazil, emeralds in Colombia. See *Economic Map of South America*, p. 125.

ANIMALS.—South America is the home of reptiles, insects, and brilliantly coloured birds; it is also noted for its toothless animals, the chief of which are the *sloth* and the *anteater*. The *mammals* are small and weak; instead of the elephant we find the pig-like *tapir*; instead of the camel and dromedary, the *llama* and *alpaca*; instead of the lion, the cowardly *puma*; and instead of the tiger, we find the *jaguar*. The forests abound with monkeys. Among birds, South America includes the largest and ugliest as well as the smallest and most graceful—the *condor* and the *rhea*; the brilliant *toucan* and the tiny *humming-bird*.

POLITICAL DIVISIONS.—South America consists of ten republics, modelled on that of the United States. The only foreign possessions are British Guiana, French Guiana, and Dutch Guiana.

SOUTH AMERICAN REPUBLICS

COUNTRY	AREA (sq. miles)	POPULATION	CAPITAL	POPULATION OF CAPITAL
ARGENTINA . . .	1,212,000	7,000,000	Buenos Aires	1,576,000
BOLIVIA	570,000	2,200,000	Sucre	24,000
BRAZIL	3,220,000	21,000,000	Rio de Janeiro	1,128,000
CHILE	291,000	3,200,000	Santiago	408,000
COLOMBIA	473,000	4,000,000	Bogotá	100,000
ECUADOR	120,000	1,300,000	Quito	60,000
PARAGUAY	173,000	800,000	Asunción	80,000
PERU	700,000	5,000,000	Lima	175,000
URUGUAY	72,200	1,100,000	Montevideo	310,000
VENEZUELA . . .	364,000	2,700,000	Caracas	85,000

ARGENTINA

Argentina, or the Argentine Republic, comprises 14 provinces and 10 territories, with an extensive seaboard on the east coast of South America. The climate is temperate and healthful. The chief products are wheat, maize, oats, linseed, sugar, wool, hides, cattle, sheep, and horses. The export of frozen beef and mutton is an important industry. The exports are made up entirely of pastoral and agricultural products, with the exception of *quebracho* (a tree with a bright red bark, which is used for dyeing), copper, manganese, and wolfram. There are 22,000 miles of railroad, chiefly in the hands of British companies. There are about 42,000 miles of telegraph lines.

CHIEF TOWNS OF ARGENTINA

TOWN	POP. IN THOUSANDS	PROVINCE	TOWN	POP. IN THOUSANDS	PROVINCE
AVELLANEDA	106	Sante Fé	MENDOZA*	59	Mendoza
BAHIA BLANCA	62	Buenos Aires	PARANÁ*	36	Entre Ríos
Buenos Aires	1,576	Buenos Aires	RIO CUARTO	30	Córdoba
CHIVILCOY	23	Buenos Aires	ROSARIO	223	Santa Fé
CONCORDIA	26	Entre Ríos	SALTA*	34	Salta
CORGOBA*	135	Córdoba	SANTA FÉ*	60	Santa Fé
CORRIENTES*	29	Corrientes	SANTIAGO*	23	Santiago del Estero
LA PLATA*	119	Buenos Aires	TUCUMÁN*	100	Tucumán

*Capital of province.

CAPITAL.—Buenos Aires. Population 1,576,000.

BOLIVIA

Bolivia has no seaboard, having lost her own to Chile during the war of 1875-1880. By a treaty of 1904, Bolivia was given free transit through Chile to the Pacific ports. The mineral productions are very valuable; the silver mines of Potosí are believed to be almost inexhaustible; while gold, partly dug and partly washed, is obtained on the Eastern Cordillera of the Andes; tin, copper, lead, antimony, wolfram, bismuth, salt, and sulphur are also found. Its agricultural produce consists chiefly of rice, barley, oats, maize, cotton, coca, indigo, rubber, cacao, potatoes, the choicest fruits, cinchona bark, medicinal herbs, etc., which with tin, gold, silver, and copper are its principal exports. Sucre (population 24,000) is the capital.

There are about 800 miles of trunk lines of railway and 2,900 miles of telegraph wire. There is direct railway communication with *La Paz* from *Antofagasta* (Chile).

BRAZIL

Brazil is the most extensive state of South America. Until 1889 it was an empire under Emperor Pedro II. of the house of Braganza. There are 42 ports along the coast, of which the principal is *Rio*. Brazil is unequalled for the number and extent of its rivers.

CHIEF PRODUCTS.—The chief products of the country are *coffee* and *rubber*: the rubber comes from the more northern provinces, especially the valley of the Amazon, and is shipped from Pará and Manáos; coffee coming chiefly from Rio de Janeiro, Minas, São Paulo, and Esperito Santo. *Tobacco* and *cocoa* are grown largely, especially in Bahia. *Cotton* is being largely cultivated for export, and is being used for home manufactures. *Sugar cane* is grown in large and increasing quantities in the northern provinces, Pernambuco being the centre of the sugar-producing zone. *Maize*, *beans*, *cassava-root*, and *nuts* are very generally cultivated; also, in some parts, *wheat* and other European cereals. Cattle-raising is an important industry.

The minerals are very considerable and valuable, comprising gold, silver, iron, diamonds, topazes, and other precious stones. Its forests are immense, abounding in the greatest variety of useful and beautiful woods adapted for dyeing, cabiner work, or shipbuilding; among these are mahogany, logwood, rosewood, brazilwood, etc.

There are about 17,000 miles of railroad, and 40,000 miles of telegraph wires.

CHIEF TOWNS OF BRAZIL

TOWN	POP. IN THOUSANDS	STATE
BELEM*	200	Pará
MACÉIÓ*	33	Alagoas
MANÁOS*	50	Amazonas
NICTHEROY*	35	Rio de Janeiro
PARAHYBA*	32	Parahyba
PERNAMBUCO*	150	Pernambuco
PORTO ALEGRE*	100	Rio Grande do Sul
RIO DE JANEIRO	1,129	Rio de Janeiro
SANTOS	35	São Paulo
SÃO PAULO*	450	São Paulo

*Capital of province.

CAPITAL. *Rio de Janeiro*. Population 1,128,000.

CHILE

Chile, a state of Spanish origin, lies between the Andes and the shores of the south Pacific. Its extreme length is about 2,800 miles, with 2,485 miles of coast-line. There are no rivers of great size, and none of them are of much service as navigable highways. In the north the country is arid. Chile is divided into 21 provinces and 3 territories. *Agriculture* and *mining* are the principal occupations. Wheat, maize, barley, oats, beans, peas, lentils, wines, tobacco, flax, hemp, Chile pepper, and potatoes are produced extensively; the vine and all European fruit trees flourish. A considerable number of live stock (cattle, sheep, horses, goats, and pigs) is raised. The mineral wealth is great, the country being rich in copper ore; some gold mines have been discovered. The rainless north yields nitrate of soda, iodine, borate of soda, gold and silver, a large number of mines yielding both being in actual work in the provinces of Atacama and Antofagasta; the centre, copper and silver; and the south, iron and coal. There are smelting works for copper and silver, tanneries, corn and saw mills, starch, soap, biscuit, rope, cloth, cheese, furniture, candle, and paper factories, breweries, and distilleries, and the domestic industry furnishes cloth, embroideries, baskets, and pottery. There are about 5,300 miles of railroad open, and over 18,000 miles of telegraph.

CHIEF TOWNS OF CHILE

TOWN	POP. IN THOUSANDS	PROVINCE	TOWN	POP. IN THOUSANDS	PROVINCE
ANTOFAGASTA*	37	Antofagasta	TALCA*	39	Talca
CHILLÁN*	40	Nuble	TALCAHUANO	21	Concepción
CONCEPCIÓN*	72	Concepción	TEMUCO*	27	Cautín
CURICÓ*	20	Curicó	VALDIVIA	20	Valdivia
IQUIQUE*	46	Tarapacá	VALPARAISO*	181	Valparaiso
SANTIAGO*	408	Santiago	VIÑA DEL MAR	31	Valparaiso

*Capital of province.

CAPITAL.—Santiago. Population 408,009.

COLOMBIA

Colombia lies in the extreme northwest of the continent, having a coast-line on the Atlantic and the Pacific. The country is intersected by the Western, Central, and Eastern Cordilleras. The Eastern range consists of a series of vast table-lands, which have a temperate and healthful climate. The chief products are coffee, cotton, bananas, and in some parts tobacco, wheat, and other cereals. Its forest trees include cedar, mahogany, fustic, and other dyewoods and medicinal plants: Its mineral productions are gold, silver, platinum, copper, coal, lead, iron, and emeralds. Its manufactures, for home consumption, consist of cottons and woollens. Coffee, precious metals, rubber, and hides are the chief exports. Bogotá (population 100,000) is the capital.

There are only about 650 miles of railroad open, and 9,000 miles of telegraph.

ECUADOR

Ecuador is divided into 15 provinces and one territory. It contains extensive forests, and the cinchona bark tree is common. The chief products are cocoa, rubber, coffee, cotton, sugar, vegetable ivory, Panama hats, and

cattle. Gold, quicksilver, lead, iron, copper, and sulphur exist; but the mineral resources need development. Rubies and emeralds are occasionally found. *Guayaquil* (pop. 60,000) is the chief port; other towns are *Quito* (pop. 60,000), the capital; *Cuenca*, (pop. 25,000). The *Galapagos Islands* (2,400 square miles) belong to Ecuador.

PARAGUAY

Paraguay is an inland state. Its chief products are tobacco, oranges, timber, yerba maté (Paraguay tea), cassava (manioc), rice, sugar cane, groundnuts, maize, quebracho extract, and hides. Stock raising is the chief industry. A British railway, 232 miles in length, connects Paraguay with the Argentine system. *Asunción* (pop. 80,000) is the capital.

PERU

Peru is a maritime state bounded on the north by Ecuador and Colombia, on the east by Brazil and Bolivia, and on the south by Chile and Bolivia. It is traversed throughout its length by the Andes. The coast region is largely sandy desert; but the valleys are very fertile, and the mountains are rich in minerals, including silver, quicksilver, copper, and coal (of inferior quality). There are important beds of petroleum, while gold is worked in many districts. The medicinal products of the eastern provinces are of great value, comprising cinchona, or Peruvian bark, sarsaparilla, copaiba, etc. Rubber is an important product of the country. Coca, cocoa, and coffee are grown on a small scale. Sugar is the staple agricultural product. The Lobos and other islands on the Pacific coast provide guano. About 1,700 miles of railroad are open. *Lima* (pop. 175,000) is the capital.

URUGUAY

Uruguay lies on the east coast of the Rio de la Plata, and consists mainly of undulating grassy plains. There are no heights above 2,000 feet. Uruguay is essentially a pastoral state, and supports large herds of cattle and

sheep. Wheat, barley, and maize are cultivated. Gold also exists. The exports are almost entirely animal and agricultural products. There are about 1,600 miles of railway open, all in British hands, and about 5,000 miles of telegraph and 19,000 miles of telephones. *Montevideo* (pop. 310,000) is the capital.

VENEZUELA

Venezuela lies on the north of South America, being bounded on the west by Colombia, on the south by Brazil and Colombia, and on the east by the Atlantic and British Guiana. The chief products are coffee, cacao, balata gum, goats' skins, cattle, and hides. The United States is its chief customer. There are about 550 miles of railroad open. *Caracas* (pop. 85,000) is the capital.

BRITISH GUIANA

British Guiana on the northeast coast of South America has an area of 90,300 square miles with a seaboard of more than 300 miles; population 310,000. The chief products are sugar, rum, gold, diamonds, timber, and balata. The 10,000 aboriginal Indians are principally occupied in hunting, fishing, and raising crops of cassava. *Georgetown* (pop. 49,000) is the capital.

FRENCH GUIANA

French Guiana has an area of about 32,000 square miles with a population of 49,000. Placer gold-mining is the most important industry. Iron, silver, and phosphates are also worked. The exports also include cocoa, various woods, and hides. *Cayenne* (pop. 14,000), on Cayenne Island, is the capital.

DUTCH GUIANA

Dutch Guiana or Surinam has an area of 46,000 square miles with a population of 89,000. The products include cacao, sugar, bananas, coffee, rice, maize, rum, and molasses. Gold, chiefly alluvial, is also worked. *Paramaribo* (pop. 35,000) is the capital.

NORTH AMERICA

THE NEW WORLD DISCOVERED.—Four hundred and twenty-five years ago—so short a time that the lives of six men might easily stretch across it—the wisest men who looked over the ocean from the shores of western Europe imagined that no greater obstacle than miles of sea lay between themselves and eastern Asia. If the theory were true, and the ancient maps reliable, then by sailing continuously westward the bold navigator would at last reach India. It was this faith which inspired Columbus to make his adventurous voyage in 1492; and the name of West Indies bears witness to his mistake. The reason men were so anxious to find a new route to India was because of the old Mediterranean route being barred by the Turks, who had taken Constantinople in 1453 and subsequently conquered Egypt.

Still further back in history, when the Northmen were winning new lands by steel and daring, their navigators are said to have struck across the North Atlantic till they came to the shores of "Vinland." The deeds of Leif Ericsson, who first discovered this "Vinland" or Wineland where the wineberries are abundant, are sung in the old Scandinavian sagas. The story may be true, though neither history nor archæology confirms the legend. The secret of the western ocean was well kept. Unquestionably the Northmen did not regard it as a new continent, but merely an outlying part of Europe or Asia.

Gradually as fresh bands of explorers pushed north and south from the points touched at by Columbus, it became clear that across the westward path to Asia there lay a vast barrier of land. Thus instead of finding the Old they had discovered a New World, the largest, next to Asia, of the great continents—its crown in the frozen grip of the Arctic, its foot bathed by the Southern Seas.

Its population was scant when compared with the densely populated countries of Europe and Asia; but its natural resources were enormous and almost untouched. The New World offered a new home for the nations of the Old; and Spaniards, Portuguese, French, Dutch, and British all scrambled for possession, until nearly the whole of the continent came under European rule.

THE BRITISH COLONISTS.—Among the new possessors of the land, the British colonists, who had settled on the eastern shores of North America, rapidly developed in importance and power. Their country was not so fertile as some of the lands to the southward; dense forests hemmed them in. The gold and silver mines which lured and enriched the Spaniards were lacking in the newly settled North. But the British settlers prospered, and soon became strong enough to resist the exactions of an autocratic German king and secure their independence of the mother country. Thus a new nation came into being—a nation whose numbers have been swelled by immigrants from almost every country in the world; but which in language, laws, and ideals is still closely akin to the land which gave it birth.

THE FRENCH.—Farther north, firmly seated on the St. Lawrence, the French held full sway, owing their authority to devoted Jesuit missionaries as much as to intrepid soldiers and traders. From the Great Lakes the agents of France struck the waters of the Mississippi, down which they extended a hand to the later French settlements in Louisiana; while by their Indian alliances these adventurers were guided through the forests and prairies of the west. Thus, when the English pioneers crossed the Alleghenies, they found their westward advance barred by a chain of French posts. The long wide-flung struggle between the two great powers rose to its height in the Old and the New World about the middle of the eighteenth century. In America it ended abruptly with the campaign which, after the taking of Quebec, gave all Canada to Britain, and left the colonies free to expand to the Mississippi.

SYNOPSIS OF NORTH AMERICA

(See Maps, pp. 81-91)

North America, the northern division of the New World, is connected with South America by the Isthmus of Panama. In a narrower sense, it extends southward to the northern frontier of Guatemala, thus excluding the Central American states. In shape and character it is not unlike the southern continent. North America is an irregular triangle in form.

It contains 8,600,000 square miles—less than half the extent of Asia; its greatest length is 4,500 miles, and its greatest breadth is 3,100 miles.

PENINSULAS.—There are, on the east coast four great peninsulas: *Labrador, Nova Scotia, Florida, and Yucatan*; on the west coast, two: *Alaska and Lower California*.

CAPIES.—The most important capes on the east coast are: *Cape Race* in Newfoundland, *Cape Sable* in Nova Scotia, *Cape Cod* in Massachusetts; *Cape Hatteras* in North Carolina, and *Cape Sable* in Florida. On the west: *Cape Prince of Wales, Cape Pierce, Cape Flattery, Cape Blanco, Point Conception, Cape San Lucas, and Cape Corrientes*. On the north: *Cape Bathurst and Cape Barrow*.

BAYS, GULFS, ETC.—On the east: *Baffin Bay, Hudson Bay, Gulf of St. Lawrence, Bay of Fundy, Gulf of Mexico, and the Caribbean Sea*. On the west: *Gulf of California*. On the north: *Gulf of Boothia*.

STRAITS.—The chief straits are: *Iludson Strait*, connecting Hudson Bay with the Atlantic; *Davis Strait*, connecting Baffin Bay with the Atlantic; *Barrow Strait*, connecting Baffin Bay with the Arctic; and *Bering Strait*, connecting the Arctic with the Pacific, and dividing the continents of North America and Asia; it is 36 miles wide.

ISLANDS.—The islands on the east coast are the most important: *Anticosti, Prince Edward Island, Newfoundland, the Bermudas, and the West Indies*. On the west, the most important island is *Vancouver*. On the north, there is a vast archipelago, the largest island of which is *Greenland*.

BUILD.—The build of North America is simple. On the west, there is a lofty table-land with a high range of mountains; on the east, a lower range parallel with the coast; and between the two, a vast plain which stretches from the Arctic to the Gulf of Mexico.

COAST LINE.—The length of the coast line is estimated at 24,500 miles; this gives one mile of coast line to each 350 square miles of surface. The east coast is much indented; the west coast is comparatively regular.

MOUNTAINS.—North America has two great mountain systems: the *Appalachian* system and the *Western or Cordillera* system. In the Appalachian system the most important range is that of the *Alleghanias*; in the Western system, the chief range is the *Rocky Mountains*.

The *Appalachian* mountains begin in the table-lands of Alabama, stretch northeast to the St. Lawrence, and reappear in the Plateau of Labrador. Besides the *Alleghanias*, their best known range are the *Blue Mountains*. They are also connected with the *Catskills* of New York, and the *Green Mountains* of Vermont.

The *Western or Cordillera* system comprises two plateaus and a number of mountain ranges. The two plateaus are the *Mexican Plateau*, which has the *Sierra Madre* as its western buttress, and the *Western Plateau*, which has the *Rocky Mountains*, the backbone of North America, as its eastern buttress; while on its western edges it has the *Sierra Nevada* and the *Cascade Mountains*. West of the Sierra Nevada and parallel to it runs the *Coast Range*, and the two support between them a river valley. The most famous part of the Western Plateau is the *Great Basin*—an elevated plateau which lies between the *Wasatch Range* on the east and the *Sierra Nevada and Cascade Range* on the west. The Great Basin is a continental basin

and contains rivers and lakes whose waters never reach the ocean. The largest of these lakes is the *Great Salt Lake*.

The highest summits of the Rocky Mountains are *Mt. McKinley* (20,300 feet)—the highest mountain in North America—and *Mt. St. Elias* (18,024 feet) in Alaska; *Mt. Logan* (19,539 feet), *Mt. Brown* (16,000 feet), and *Mt. Hooker* (15,700 feet) in Canada; *Fremont Peak* (13,790 feet) in Wyoming; *Pikes Peak* (14,108 feet) in Colorado. In Mexico, at the south end of the Mexican Plateau, are *Popocatepetl* (19,784 feet) and *Ixtaccihuatl* (17,879 feet). The highest peak in the Sierra Nevada is *Mt. Whitney* (14,501 feet), and the highest in the Appalachians *Mt. Mitchell* (6,711 feet).

PLAINS.—The *Great Central Plain* lies between the Rocky Mountains and the Appalachian system, and extends from the Arctic to the Gulf of Mexico. One half of this plain slopes to Hudson Bay and the Arctic; the other half to the Gulf of Mexico. The watershed between them is often called the *Height of Land*.

The *Coastal Plain* borders the Atlantic and the Gulf of Mexico. It contains large areas of valuable soil, eminently suitable for agriculture. Until the occupation and development of the Great Central Plain, the Coastal Plain was the agricultural centre of America.

PRAIRIES.—The vast fertile plains of the Mississippi Valley are called *prairies*, a French word meaning an extensive meadow tract. In Canada the prairies extend from the Rocky Mountains to a line eastward of Winnipeg. The prairies are generally of a rolling character, and except where cultivated are usually covered with high coarse grass, with few or no trees.

RIVERS.—North America has a magnificent system of rivers. The main axis of the continent, being nearest the Pacific, sends the longest streams into the Atlantic and the Arctic. The four largest rivers are the *Mississippi, the Saskatchewan, the Mackenzie* (including the *Great Slave River*, and either *Peace or Athabasca* rivers), and the *St. Lawrence*. The two largest rivers into the Pacific are the *Yukon* and the *Columbia*.

MISSISSIPPI.—The Mississippi ("Father of Waters"), with its tributary the Missouri, is the longest river in the world; it is 4,200 miles in length. Its basin consists mainly of three long slopes: (1) from the Rocky Mountains eastward; (2) from the Appalachians westward; and (3) from a low divide called the *Height of Land* southward. Down these three slopes flow its three largest tributaries, the *Missouri, the Ohio, and the Upper Mississippi*, that is, the Mississippi from its source to the mouth of the Missouri.

The Mississippi and its tributaries have more than 15,000 miles of navigable waterways, and drain an area of about 1,250,000 square miles. Extending through the heart of North America, the system affords a direct line of communication between temperate and tropical regions. The Mississippi rises in the small lake of Itasca in Minnesota. In its middle course it receives from the west the *Missouri, Arkansas, and Red Rivers*; from the east, the *Ohio*. The *Missouri* itself receives the two great tributaries, the *Yellowstone* and the *Platte*.

ST. LAWRENCE.—The St. Lawrence with the five Great Lakes forms one of the great river systems of the world. Its length from the source of the river St. Louis to the Gulf of St. Lawrence is 2,100 miles. Its largest tributary is the *Ottawa*; its grandest, the *Saguenay*. It receives also a large number of tributaries from the south.

The St. Lawrence has a number of different names throughout its course: (1) above Lake Superior it is called the *St. Louis*; (2) between Superior and Lake Huron, *St. Marys River*; (3) between Huron and Lake St. Clair, the *St. Clair*; (4) between St. Clair and Lake Erie, the *Detroit*; and (5) between Erie and Ontario, the *Niagara*, on which are the famous *Niagara Falls*; and (6) between Ontario and the Gulf of St. Lawrence, the *St. Lawrence*. The length of the river during which it bears the name St. Lawrence is 760 miles. As a natural highway between all points west of the Maritime Provinces and Europe the importance of the river to Canada cannot be over-estimated. It is the shortest freight route from the Great Lakes to Europe.

NIAGARA FALLS.—The Niagara Falls on the Niagara River are the greatest in the world for volume of water. The American Fall, adjoining the right bank, is a sheer descent of 162 feet and about 1,400 feet broad. The Horseshoe Falls, adjoining the left bank, has a depth of 155 feet, and falls over a great curve of rock measuring 2,600 feet. The Whirlpool is just below the Falls. The flow of water in the river at mean stage is 222,000 cubic feet per second, at low stage 176,000 cubic feet; this affords a theoretic water power equal to nearly four million horse power, of which it is estimated that three fourths is practically available for economic purposes.

HIGHEST POINTS IN THE UNITED STATES

STATE OR TERRITORY	GREATEST ALTITUDE	HEIGHT (feet)
ALABAMA	Cheaha Mt. (Talladega Co.)	2,407
ALASKA	Mt. McKinley	20,300
ARIZONA	San Francisco Peak (Coconino Co.)	12,611
ARKANSAS	Blue Mt. (Polk-Scott Co.)	2,800
CALIFORNIA	Mt. Whitney (Inyo-Tulare Cos.)	14,501
COLORADO	Mt. Elbert (Lake Co.)	14,402
CONNECTICUT	Bear Mt. (Litchfield Co.)	2,355
DELAWARE	Centerville (Newcastle Co.)	440
DISTRICT OF COLUMBIA	Tenley (Northwest)	420
FLORIDA	Iron Mt. (Polk Co.)	325
GEORGIA	Brasstown Bald (Townsend Co.)	4,768
HAWAII	Mauna Kea (Hawaii Co.)	13,823
IDAHO	Castle Peak (Custer Co.)	12,130
ILLINOIS	Charles Mound (Jo Daviess Co.)	1,241
INDIANA	Carlos City (Randolph Co.)	1,210
IOWA	Primghar (O'Brien Co.)	1,800
KANSAS	On West Boundary	4,135
KENTUCKY	Big Black Mt. (Harlan Co.)	4,100
LOUISIANA	Claiborne Co.	400
MAINE	Katahdin Mt. (Piscataquis Co.)	5,273
MARYLAND	Backbone Mt. (Garrett Co.)	3,340
MASSACHUSETTS	Mt. Greylock (Berkshire Co.)	3,505
MICHIGAN	Porcupine Mt. (Ontonagon Co.)	3,023
MINNESOTA	Mesabi Range (St. Louis Co.)	1,920
MISSISSIPPI	Three miles southwest of Iuka	780
MISSOURI	Taum Sauk Mt. (Iron Co.)	1,750
MONTANA	Granite Peak (Carbon Co.)	12,850
NEBRASKA	Southwest part Banner Co.	5,350
NEVADA	East Peak White Mts. (Esmeralda Co.)	13,145
NEW HAMPSHIRE	Mt. Washington (Coos Co.)	6,293
NEW JERSEY	High Point (Sussex Co.)	1,809
NEW MEXICO	N. Truchas Peak (Rio Arriba Co.)	13,306
NEW YORK	Mt. Marcy (Essex Co.)	5,344
NORTH CAROLINA	Mt. Mitchell (Yancy Co.)	6,711
NORTH DAKOTA	Summit in Bowman Co.	3,500
OHIO	Near Bellefontaine (Logan Co.)	1,550
OKLAHOMA	West end of Cimarron Co.	4,750
OREGON	Mt. Hood (Clackamas-Wasco Co.)	11,225
PENNSYLVANIA	Blue Knob (Bedford Co.)	3,136
PHILIPPINES	Mt. Ape (Mindanao)	10,312
PORTO RICO	Luquille Mts.	3,532
RHODE ISLAND	Durfee Hill (Providence Co.)	805
SOUTH CAROLINA	Sassafras Mt.	3,548
SOUTH DAKOTA	Harney Peak (Pennington Co.)	7,242
TENNESSEE	Mt. Guyet	6,636
TEXAS	El Capitan (El Paso Co.)	9,020
UTAH	Kings Peak (Wasatch Co.)	13,498
VERMONT	Mt. Mansfield (Chittenden Co.)	4,406
VIRGINIA	Mt. Rogers (Grayson Co.)	5,719
WASHINGTON	Mt. Ranier (Pierce Co.)	14,408
WEST VIRGINIA	Spruce Knob (Pendleton Co.)	4,860
WISCONSIN	Rib Hill (Marathon Co.)	1,940
WYOMING	Gaonnert Peak (Fremont Co.)	13,785

PRINCIPAL RIVERS OF NORTH AMERICA

RIVER	LENGTH (miles)	SOURCE	MOUTH
ALABAMA	350	Junction of Coosa and Tallapoosa rivers, Ala.	Mobile River
ALLEGHANY	350	Near Raymond, Pa.	Ohio River
ALTAMAHA	150	Formed by Ocmulgee and Oconee rivers, Ga.	Atlantic Ocean
ANDROSOGGIN	160	Umbagog Lake, Me.	Kennebec River
APALACHICOLA	90	Junction of Chattahoochee and Flint rivers, Ga.	Gulf of Mexico
ARKANSAS	2,000	Rocky Mountains, Col.	Mississippi River
BIG HORN	500	Rocky Mountains, Wyo.	Yellowstone River
BLACK	190	Adirondack Lakes, N. Y.	Lake Ontario
BLACK WARRIOR	300	Formed by Locust and Mulberry Forks, Ala.	Tombigbee River
BRAZOS	850	In the Staked Plain, Tex.	Gulf of Mexico
CANADIAN	900	Northeastern New Mexico	Arkansas River
CAPE FEAR	250	Junction of Haw and Deep rivers, N. C.	Atlantic Ocean
CHATTAAHOOCHEE	500	In Habersham County, Ga.	Apalachicola River
CHEYENNE	500	Eastern Wyoming	Missouri River
CHOWAN	50	Junction of Meheran and Nottoway rivers, N. C.	Albemarle Sound
CHURCHILL	800	North Saskatchewan and North Manitoba	Hudson Bay
CIMARRON	650	Raton Mountains, N. Mex.	Arkansas River
COLORADO	650	In the Staked Plain, Tex.	Matagorda Bay
COLORADO	1,360	Junction of Green and Grand rivers, Utah	Gulf of California
COLUMBIA	1,400	Upper Columbia Lake, B. C.	Pacific Ocean
CONNECTICUT	410	Connecticut Lake, N. H.	Long Island Sound
COOSA	350	Junction of Oostenaula and Etowah rivers, Ga.	Alabama River
CUMBERLAND	650	Junction of Potomac and Straight Forks, Ky.	Ohio River
DELAWARE	375	Catskill Mountains, N. Y.	Delaware Bay
DES MOINES	450	Lake Shetek, Minn.	Mississippi River

PRINCIPAL RIVERS OF NORTH AMERICA—Continued

CHIEF CANALS OF THE UNITED STATES AND CANADA

RIVER	LENGTH (miles)	SOURCE	MOUTH
DOLORES	052	San Juan Mountains, Col.	Grand River
FLINT	350	Near Atlanta, Ga.	Apalachicola River
FOX	250	Green Lake County, Wis.	Green Bay
FRASER	740	British Columbia	Gulf of Georgia
GENESSEE	145	Near Raymond, Pa.	Lake Ontario
GILA	550	Tuscan Mountains, N. Mex.	Colorado River
GRAND	200	Southern Iowa	Missouri River
GRAND	280	Hillsdale County, Mich.	Lake Michigan
GRAND	350	Grand Lake, Col.	Green River
GREAT KANAWHA	450	Blue Ridge Mountains, N. C.	Ohio River
GREEN	350	Lincoln County, Ky.	Ohio River
GREENBRIER	175	Pocahontas County, W. Va.	Great Kanawha River
GUNNISON	200	Saguache Range, Col.	Grand River
HACKENSACK	50	Rockland County, N. Y.	Newark Bay
HOUSATONIC	150	Taghatic Mountains, Mass.	Long Island Sound
HUDSON	350	Lake Sanford, Adirondack Mountains, N. Y.	New York Bay
HUMBOLDT	375	Elko County, Nev.	Humboldt Lake
ILLINOIS	345	Des Plaines River, Wis.	Mississippi River
JAMES	450	Formed by Jackson and Cowpasture Rivers, Va.	Chesapeake Bay
KALAMAZOO	200	Hillsdale County, Mich.	Lake Michigan
KANSAS	300	Junction of Smoky Hill Fork and Solomon River, Ky.	Missouri River
KASKASKIA	320	Champaign County, Ill.	Mississippi River
KENNEBEC	175	Moosehead Lake, Me.	Atlantic Ocean
KENTUCKY	250	Cumberland Mountains, Ky.	Ohio River
KERMA	600	Mexico State	Pacific Ocean
MACKENZIE*	900	Great Slave Lake	Arctic Ocean
MENOMINEE	125	Junction Brule and Michigamie rivers, Mich.	Green Bay
MERRIMAC	150	White Mountains, N. H.	Atlantic Ocean
MINNESOTA	475	Big Stone Lake, S. Dak.	Mississippi River
MISSOURI-MISSISSIPPI	4,200†	†Rocky Mountains, Mont., and Itasca Lake, Minn.	Gulf of Mexico
MOBILE	50	Junction of Tombigbee and Alabama rivers, Ala.	Mobile Bay
MOHAWK	160	Lewis County, N. Y.	Hudson River
MONONGAHELA	300	Formed by West Fork and Tygart's Valley rivers, W. Va.	Alleghany River
NELSON	500	Lake Winnipeg	Hudson Bay
NEOSHO	400	Morris County, Kan.	Arkansas River
NEISE	300	Person County, N. C.	Pamlico Sound
OCMULGEE	280	Northern Georgia	Altamaha River
OHIO	950	Junction of Alleghany and Monongahela rivers, Pa.	Mississippi River
OSAGE	460	Lyon County, Kan.	Missouri River
OTTAWA	600	Near Lake Timiskaming	St. Lawrence River
PASSAIC	100	Morris County, N. J.	Newark Bay
PEARL	350	Winston County, Miss.	Gulf of Mexico
PECOS	800	Rocky Mountains, N. Mex.	Rio Grande
PEDEE (Yadkin)	300	Blue Ridge Mountains, N. C.	Winyaw Bay, S. C.
PENOBSCOT	350	Somerset County, Me.	Penobscot Bay, S. C.
PLATTE	1,260	Sweetwater River, Wyo.	Missouri River
POWDER	400	Big Horn Mountains, Wyo.	Yellowstone River
POTOMAC	450	Alleghany Mountains, W. Va.	Chesapeake Bay
RED	1,200	In the Straked Plain, Tex.	Mississippi River
RED	700	Lake Traverse, Minn.	Lake Winnipeg
RIO GRANDE	1,800	San Juan Mountains, Col.	Gulf of Mexico
ROANOKE	240	Formed by Dan and Staunton rivers, Va.	Albemarle Sound
ROCK	330	Koshkonong Lake, Wis.	Mississippi River
SABINE	460	Northern Texas	Gulf of Mexico
SACRAMENTO	600	Goose Lake, Cal.	Suisun Bay
SAGUENAY	112	Lake St. John	St. Lawrence River
ST. CROIX	200	Douglas and Bayfield counties, Wis.	Mississippi River
ST. FRANCIS	460	St. Francois County, Mo.	Mississippi River
ST. JOHN'S	400	Brevard and Osceola counties, Fla.	Atlantic Ocean
ST. JOSEPH	260	Hillsdale County, Mich.	Lake Michigan
ST. LAWRENCE**	760	Lake Ontario	Gulf of St. Lawrence
SAN JOAQUIN	350	Sierra Nevada Mountains, Cal.	Sacramento River
SAJONTE	150	Junction of Wateree and Congaree rivers, S. C.	Atlantic Ocean
SASKATCHEWAN	1,660	Rocky Mountains	Lake Winnipeg
SAVANNAH	450	Formed by Tugaloo and Kiowee rivers, S. C.	Atlantic Ocean
SCHUYLKILL	130	Near Pottsville, Pa.	Delaware River
SCIOTO	225	Auglaize County, Ohio	Ohio River
SHENANDOAH	200	Northern Virginia	Potomac River
SNAKE	950	Yellowstone National Park, Wyo.	Columbia River
SUSQUEHANNA (North Branch)	256	Lake Schuyler and Otsego Lake, N. Y.	Chesapeake Bay
(West Branch)	250	Near Raymond, Pa.	Susquehanna River
SUWANEE	200	Okefinokee Swamp, Ga.	Gulf of Mexico
TALLAHATCHEE	240	Northern Mississippi	Yazoo River
TALLAPOOSA	250	Paulding County, Ga.	Coosa River
TENNESSEE	1,200	Formed by Clinch and Holston rivers, Tenn.	Ohio River
TOMBIGBEE	475	Prentiss County, Miss.	Mobile River
TRINITY	530	Northern Texas	Galveston Bay
WABASH	550	Mercer County, Ohio	Ohio River
WASHITA	550	Western Arkansas	Red River
WHITE	800	Northwestern Arkansas	Mississippi River
WILLAMETTE	275	Cascade Range, Ore.	Columbia River
WISCONSIN	400	Northern Wisconsin	Mississippi River
YAZOO	300	Junction of Tallahatchee and Yazobusha rivers, Miss.	Mississippi River
YELLOWSTONE	1,100	Rocky Mountains, Wyo.	Mississippi River
YUKON	2,200	Lake Lindeman, Yukon District, Canada	Bering Sea

CANAL	SITUATION	LENGTH (miles)	DEPTH (feet)
ALBEMARLE AND CHESAPEAKE	Norfolk, Va., to Albemarle Sound, N. C.	11½	12
AUGUSTA	Savannah River, Ga., to Augusta, Ga.	7	10
BEAUFORT	Beaufort Inlet, N. C., to Pamlico Sound	20	10
BLACK RIVER	Rome, N. Y., to Lyons Falls, N. Y.	35	4
BLACK ROCK CHANNEL	Connects Lake Erie and Niagara Falls at Buffalo, N. Y.	3½	22
BRAZOS RIVER	Brazos River to Matagorda Bay, Tex.	32	5
CALOOSAHATCHEE	Fort Myers to Lake Okeechobee, Fla.	28	6
CAPE COD (ship canal)	Connects Buzzards Bay and Barnstable Bay	8-13	25-30
CAYUGA AND SENECA	Montezuma, N. Y., to Cayuga and Seneca Lakes, N. Y.	25	12
CHAMBLY	This canal overcomes the rapids between Chamblay and St. Johns	12	6½
CHAMPLAIN	Whitehall, N. Y., to Watervliet, N. Y.	81	12
CHANNEL	Between Apalachicola River and St. Andrews Bay, Fla.	32	5
CHESAPEAKE AND DELAWARE	Connects Chesapeake and Delaware bays	14	9
CHESAPEAKE AND OHIO	Cumberland, Md., to Washington, D. C.	185	6
COLBERT SHOALS	Colbert Shoals, Tennessee River, Ala.	8	7
COMPANY	Mississippi River at New Orleans, La., to Bayou Black	23	4½
CORNWALL	Cornwall to Dickinson's Landing	11	14
DALLEZ-CELLO	Columbia River, from Big Eddy to Celilo Falls, Oregon	8½	7
DELAWARE AND RARITAN	New Brunswick, N. J., to Bordentown, N. J.	66	7
DELAWARE DIVISION	Easton, Pa., to Bristol, Pa.	60	6
ERIE	Albany, N. Y., to Buffalo, N. Y.	387	12
ESTHERVILLE-MINIM CREEK	Winyaw Bay, S. C., to Santee River	5	6
FAIRFIELD	Alligator River to Lake Mattamuskeet, N. C.	4½	5
FLORIDA COAST LINE	Mayport, Fla., to Miami	370	5
GALVESTON AND BRAZOS	Oyster Bay, Tex., to Brazos River, Tex.	38	5
HAKLEM RIVER (ship canal)	Connects Hudson River (via Spuyten Duyvil Creek) and Long Island Sound	8	15
HILLSBORO	Deerfield to Lake Okeechobee, Fla.	50	6-8
ILLINOIS AND MICHIGAN	Chicago, Ill., to La Salle, Ill.	96	5
ILLINOIS AND MISSISSIPPI (Hennepin)	Illinois River to Mississippi River, near Rock Island, Ill.	75	7
INLAND WATERWAY (Lewes Canal)	Rehoboth Bay to Delaware Bay, Del.	12	6
LACHINE	Montreal to Lachine	8½	14-18
LAKE DRUMMOND	Connects Chesapeake Bay with Albemarle Sound	22	9
LAKE LANDING	Lake Mattamuskeet to Wysocking Bay, N. C.	4	5
LAKE WASHINGTON-PUGET SOUND	Connects Lake Washington and Puget Sound	6½	36
LEHIGH COAL AND NAVIGATION CO.	Coalport, Pa., to Easton, Pa.	108	6
LOUISVILLE AND PORTLAND	At Falls of Ohio River, Louisville, Ky.	2½	9
MATTAMUSKEET OUT FALL	Hyde County, N. C.	7	6
MIAMI AND ERIE	Cincinnati, Ohio, to Toledo, Ohio	274	5½
MIAMI	Lake Okeechobee to Miami, Fla.	79	6-8
MORRIS	Jersey City, N. J., to Phillipsburg, N. J.	103	5
MUSCLE SHOALS AND ELK RIVER SHOALS	Big Muscle Shoals to Elk River Shoals, Tenn.	16	5
NORTH NEW RIVER	Lake Okeechobee to Ft. Lauderdale, Fla.	59	5-8
NEW JERSEY COASTAL INLAND WATERWAY	Cape May to Bay Head, N. J.	114	6
OHIO	Cleveland, Ohio, to Dresden, Ohio	70	4
OSWEGO	Oswego, N. Y., to Syracuse, N. Y.	38	12
PENNSYLVANIA	Columbia, Northumberland, Wilkes-Barre, Pa.	103	6
PORTAGE LAKE AND LAKE SUPERIOR	From Keweenaw Bay to Lake Superior	25	20
PORT ARTHUR (ship canal)	Port Arthur, Tex., to Gulf of Mexico	7	26
RIDEAU	Connects River Ottawa with Lake Ontario	133½	5
SABINE-NECHES	Port Arthur Canal to mouth Sabine River, Tex.	16	26
ST. CLAIR FLATS	Canal through delta at mouth of St. Clair River	3	20
ST. LUCIE	Stuart to Lake Okeechobee, Fla.	25	8-12
ST. MARYS FALLS	Connects lakes Superior and Huron at Sault Ste Marie, Mich.	1½	18½
ST. MARYS FALLS (parallel canal)	Connects lakes Superior and Huron	1½	24½
SALEM	Salem River to Delaware River	2	5-8
SANTA FE	Waldo, Fla., to Melrose, Fla.	10	5
SAULT STE MARIE (ship canal)	Connects lakes Superior and Huron at St. Mary's River	1½	18
SCHUYLKILL NAVIGATION CO.	Mill Creek, Pa., to Philadelphia, Pa.	108	6½
SOULANGES	Cascade Point to Coteau Landing	14	15
SOUTH NEW RIVER	Ft. Lauderdale to Lake Okeechobee, Fla.	25	6-8
STURGEON BAY AND LAKE MICHIGAN	Between Green Bay and Lake Michigan	1½	20
TRENT	Connects Lake Ontario and Lake Huron via Trent River	236	6-8½
WELLAND (ship canal)	Connects Lake Ontario and Lake Erie	26½	14-25
WEST PALM BEACH	Lake Okeechobee, Lake Worth, West Palm Beach	42½	5-8
WILLIAMSBURG	Along St. Lawrence River	12½	9-14

*Sometimes regarded as including Great Slave River and either Peace or Athabasca River, with total length of about 2,350 miles.

†Total length from source of Missouri to Gulf of Mexico. ‡Source of Missouri. §Source of Mississippi.

**See above paragraph entitled "St. Lawrence."

LAKES.—North America has the largest number of the largest lakes of any continent. These lakes lie in the form of an immense semicircle, parallel and almost concentric with Hudson Bay. The most important are: the five Great Lakes, *Superior, Michigan, Huron, Erie, and Ontario*, which form part of the St. Lawrence basin; the *Great Bear Lake; Great Slave Lake; Athabasca; Winnipeg*; and the *Great Salt Lake*. Of the five Great Lakes, the only one which lies entirely within the United States is *Michigan*; the others lie between the United States and Canada.

CLIMATE.—North America possesses every gradation of climate from Arctic to tropical. Latitude for latitude, it is colder than the climate of Europe. Thus Labrador is in the latitude of Great Britain; but it is colder than Siberia. Quebec is in the latitude of Paris; but has a much colder and longer winter. Washington is in the latitude of Sicily; but the Potomac is frozen over, and sleighs glide about the streets in winter.

In most parts of North America the climate is more continental than in the corresponding latitudes of Europe. This is mainly due to the absence of inland seas; also to the fact that the southwest winds from the Pacific are kept off by the mountain ranges from the eastern plains, which are extremely cold in winter and intensely hot in summer.

The changes of temperature are very abrupt. This is due to the fact that there is no range of mountains between the northern and southern slope; and the Great Central Plain extends without a break from the Arctic to the Gulf of Mexico.

In the Temperate Zone, the west coast is warmer and moister than the east. This is because the warm rain-laden southwest winds from the Pacific blow on the west coast. But in the east a west wind is a dry wind; while the east wind is cold as well as moist.

The rainfall is greatest in the south, and decreases as we go north; it also decreases from west to east. The driest parts are the Western Plateau, especially the Utah Basin, which is drying up. The elevated plains east of the Rocky Mountains are always dry. See *Climate Map of North America*, pp. 84, 85.

VEGETATION.—The flora of North America is very rich and varied. In the Arctic regions we find mosses, lichens, and stunted trees; in the temperate regions there is a greater variety of forest trees than is to be found in the forest regions of Europe or Asia; while in the tropical regions we find palms and bamboo. In Mexico the most striking plants are the *cactuses*.

Of cultivated plants, the North grows *barley*, *oats*, and excellent *spring wheat*; *maize*—the only cultivated cereal that is indigenous to North America—grows in the warmer part of Canada and in nearly all the southern parts of the continent; the *sugar cane*, *cotton*, and *tobacco* are cultivated in the southern districts of the United States. *Rice* is grown very far south; and *subtropical fruits* (the orange, fig, lemon, etc.) flourish in the warm southern regions. See *Vegetation Map of North America*, p. 86.

MINERALS.—North America is unequalled by any continent in the richness and variety of its mineral products. *Coal* and *iron* are abundant; while the precious metals—*gold* and *silver*—are mined in very large quantities. The purest *copper* is found in great abundance on the north and east shores of Lake Superior. *Lead* and *quicksilver* are found in many parts of the continent; both Canada and Mexico produce *tin*. For fuller details of the mineral wealth of the continent, see under *Mexico*, *Canada*, and the *United States* respectively. See *Economic Map of North America*, p. 87.

ANIMALS.—North America is as rich as the Old World in birds, and insects, but is much poorer in mammals. In the north we find the *caribou* (corresponding to the reindeer of Europe), the *moose*, *bear*, *beaver*, *raccoon*, *seal*, and many other fur-coated animals. The American *bison* or *buffalo*, which formerly roamed in large herds over most of the temperate regions of the continent, is now extinct except for small herds in Yellowstone Park and in captivity. There is only one marsupial—the *opossum*. *Monkeys* are found only within the tropics. Among *carnivorous animals* there are the *cougar* or *mountain lion*, the *jaguar*, *wolf*, *fox*, *bear*, *skunk*, the *pine marten* or *American sable*, the *otter*, and the *glutton*.

There are many species of birds noted either for their song or for their plumage. The *humming-bird* is peculiar to America. The common *turkey* is also native to America. The *rattlesnake* is the most dangerous reptile.

CHIEF RAILWAYS OF NORTH AMERICA

SYSTEM	MILEAGE	EXPRESS CO.
Atchison, Topeka, and Santa Fe	10,668	Wells Fargo
Atlanta, Birmingham, and Atlantic	642	Southern
Atlantic Coast Line	11,798	Southern
Baltimore and Ohio	5,636	Wells Fargo
Bangor and Aroostook	631	American
Buffalo, Rochester, and Pittsburgh	586	American
Canadian Northern	4,553	Canadian Northern
Canadian Pacific	13,322	Dominion
Chesapeake and Ohio	2,369	Adams
Chicago and Alton	1,033	American; National
Chicago and E. Illinois	1,282	Wells Fargo
Chicago and North Western	9,860	American
Chicago, Burlington, and Quincy	11,222	Adams
Chicago Great Western	1,428	Wells Fargo
Chicago, Indianapolis, and Louisville	622	American
Chicago, Milwaukee, and St. Paul	10,045	Wells Fargo
Chicago, Rock Island, and Pacific	8,331	American
Colorado Midland	338	Wells Fargo
Delaware and Hudson	881	National
Delaware, Lackawanna, and Western	959	Adams
Denver and Rio Grande	3,514	Globe; Wells Fargo
Detroit and Mackinac	400	American
Detroit, Toledo, and Ironton	736	American
Duluth, South Shore, and Atlantic	627	Western
Elgin, Joliet, and Eastern	777	
El Paso and South Western	1,027	Wells Fargo
Erie	2,398	Wells Fargo
Florida East Coast	720	Southern
Grand Trunk	4,787	Canadian; National
Grand Trunk Pacific	3,549	Canadian
Great Northern	8,060	Great Northern
Hocking Valley	352	Adams
Illinois Central	8,073	American
Intercolonial	1,889	Canadian; Dominion
International and Great Northern	1,160	Wells Fargo
Kansas City Southern	827	Wells Fargo
Lehigh Valley	1,444	American
Minneapolis and St. Louis	1,646	Adams
Minneapolis, St. Paul, and Sault Ste Marie	4,103	Western
Missouri, Kansas, and Texas	3,865	American
Missouri Pacific	7,285	Wells Fargo
New Orleans, Mobile, and Chicago	403	Southern
New York Central and Hudson River	13,076	American; National

SYSTEM	MILEAGE	EXPRESS CO.
New York, New Haven, and Hartford	6,393	Adams; American
Norfolk Southern	900	Southern
Norfolk and Western	2,042	Southern
Northern Pacific	6,461	Northern
Northwestern Pacific	401	Wells Fargo
Pennsylvania	11,005	Adams
Père Marquette	2,314	Adams; Dominion
Philadelphia and Reading	1,992	American
St. Louis and San Francisco	5,815	Wells Fargo; Southern
St. Louis Southwestern	1,754	Wells Fargo
San Antonio and Aransas Pass	724	Wells Fargo
San Pedro, Los Angeles, and Salt Lake	1,132	American
Seaboard Air Line	3,106	Southern
Southern	9,479	Southern
Southern Pacific	10,369	Wells Fargo
Spokane, Portland, and Seattle	556	Northern; Great Northern
Texas and Pacific	1,991	Wells Fargo
Toledo, St. Louis, and Western	451	National
Union Pacific	8,952	American
Virginian	504	Adams
Wabash	3,032	Wells Fargo
Western Maryland	661	American

MEXICO

THE AZTECS.—Mexico was at one time a great empire ruled by the Aztecs. This race had attained a remarkable degree of civilization, and interesting remains of their architecture are existent in the *teocallis* or temples, usually erected in the form of truncated pyramids.

CONQUESTS BY THE SPANIARDS.—Long before the English and the French settled in the New World, the empire of the Aztecs was conquered by the Spaniards (1521). The country was called *New Spain*, and was governed by a series of viceroys possessed of almost absolute power. During the three hundred years since Cortez had wrested the power from Montezuma, four classes of people had appeared as the subjects of the Spanish rulers. These were: (1) the native Indians; (2) the Creoles, of Spanish descent but Mexican birth; (3) Spaniards born in Europe; and (4) the Mestizo or half-breeds, who were crosses between the other classes and the Indians.

INDEPENDENCE OF MEXICO.—The spirit of discontent engendered by the oppressiveness of the Spanish rule manifested itself in open rebellion at the beginning of the nineteenth century, and after various attempts to overthrow the royalist government the Mexicans succeeded in gaining their independence in 1821-1822.

ANARCHY AND CIVIL WARS.—The republican system which was founded on the ruins of the viceroyalty was more turbulent and unsettled than the government which it replaced. The confederacy of states was turned into a consolidated republic in 1835, with Santa Anna as president and virtual dictator. From then to the present time, except for the brief rule of the Austrian archduke Maximilian as emperor from 1864 till his execution in 1867, Mexico has had numerous dictatorships, and has been torn by civil strife. Faction wages war on faction; law and order give place to anarchy and rapine. Ranches are stripped of cattle, farms are left uncultivated, graft and pillage are rampant, while starvation stares many in the face. Under happier conditions Mexico would become one of the most prosperous countries in the Western Hemisphere. Its natural resources are very vast. It is a country that could support a large population in comparative affluence; but a stable government and domestic peace must be established before the potentialities of Mexico can be lifted into the realm of reality.

SYNOPSIS OF MEXICO

(See Maps, pp. 89-91)

The Republic of Mexico forms the southern extremity of North America and stretches into Central America, with an extensive seaboard on both the Atlantic and Pacific Oceans. It is bounded on the north by the United States; on the south by Guatemala and British Honduras. It comprises one of the richest and most varied zones in the world, but from various

causes its resources have never been fairly developed. Mexico comprises twenty-seven states, three territories, and a Federal district, making in all thirty-one divisions, with an area of 768,883 square miles and a population of 15,063,000.

BUILD.—The surface consists of an elevated plateau, commencing at a few miles from the coast, and containing several volcanic summits, the highest of which are *Ixtaccihualt* (17,879 feet) and *Popocatepetl*, (19,784 feet).

CLIMATE.—Three climate zones may be distinguished. On the coasts (*tierra caliente*) a tropical climate prevails, with frequent hurricanes and earthquakes; the lower plateaus on the east and west (*tierra templada*) enjoy a temperate climate; the more elevated table-lands (*tierra fria*) are cold, while the loftiest summits are covered with snow all the year round. The rainy season lasts from May to October; at Vera Cruz the rainfall is 186 inches per annum, and at Mexico City 25 inches. The mean temperature of Vera Cruz is 71.6°F. in January and 81.5°F. in July; and of Mexico City 53.6°F. and 65.3°F.

NATURAL PRODUCTIONS.—The chief *crops* are maize, wheat, barley, Chile pepper, sugar, coffee, cotton, tobacco, vanilla, flax, grapes, and all kinds of tropical fruit. The maguey, or Mexican aloe, yields a favourite beverage called "pulque"; other species of the same plant supply pita-flax and sisal-hemp (henequen). The *forests* abound in mahogany, rosewood, ebony, and caoutchouc trees. The *mineral wealth* is very great; silver and gold, copper, lead, and quicksilver, iron and coal, are the leading products of the mines. Mexico is one of the two largest silver-producing countries of the world.

INDUSTRIES.—The industries comprise mining and smelting of silver and other metals, cotton and woollen spinning and weaving, agriculture, and stock raising. There is a large output of sugar and molasses, and an increasing supply of petroleum is produced. The chief trade is with the United States; next come Great Britain, France, Germany, Spain, and Belgium.

CHIEF CITIES OF MEXICO

CITY	POP. IN THOUSANDS	STATE
AGUASCALIENTES*	45	Aguascalientes
CHIHUAHUA*	40	Chihuahua
DURANGO*	32	Durango
GUAOALAJARA*	119	Jalisco
GUANAJUATO*	36	Guanajuato
LEÓN	58	Guanajuato
MÉRIDA	62	Yucatan
MEXICO CITY*	471	Federal District
MONTERREY*	74	Nuevo León
MORELIA*	40	Michoacán
OAXACA*	38	Oaxaca
ORIZABA	35	Vera Cruz
PACHUCA*	39	Hidalgo
PUEBLA*	96	Puebla
QUERÉTARO*	33	Querétaro
SALTILLO*	35	Coahuila
SAN LUIS POTOSÍ*	68	San Luis Potosí
TOLUCA*	31	Mexico
VERA CRUZ.	49	Vera Cruz
ZACATECAS*	26	Zacatecas

*Capital of state.

CAPITAL.—*Mexico City*. Population, 471,000.

CHIEF PORTS.—Acapulco, Mazatlán, Salina Cruz, Guaymas on the Pacific; and Vera Cruz, Tampico, Progreso, and Coatzacoalcos or Puerto Mexico on the Atlantic or Gulf of Mexico.

CHIEF EXPORTS.—Silver and gold (about 45 per cent.); sisal-hemp, coffee, timber, logwood, hides and skins, vanilla, sugar, tobacco, dyestuffs, and drugs.

CHIEF IMPORTS.—Textiles, machinery, chemicals, arms and ammunition, carriages, etc.

COMMUNICATIONS.—The railways have been built in a large measure by American and English companies. There are about 16,000 miles of railway opened. There are about 60,000 miles of Federal telegraph lines, and 5,000 miles belonging to individual states and private persons. There are also 30,000 miles of Federal telephone wire.

COINAGE.—The unit is the *peso* or silver dollar, nominally worth \$1 but actually about 50 cents. The finances are at present in a chaotic condition owing to the prolonged civil hostilities which have occupied the various factions during recent years.

GOVERNMENT.—Theoretically Mexico is a republic with a constitution modelled on that of the United States, with a president elected for six years, a Senate, and a House of Representatives; but in practice, notwithstanding the democratic forms, Mexico has been ruled for the last thirty years or more by the simpler method of ignoring the constitution altogether. Thirty-eight per cent of the population are pure-blooded Indians and 43 per cent of mixed Indian and European blood—a fact which militates against the success of popular government.

CANADA

FIRST FRENCH, THEN ENGLISH.—Canada was originally discovered by Cabot in 1497, but its history dates only from 1534, when the French took possession of the country. The first settlement (Quebec) was founded by them in 1608. Quebec succumbed to the British forces under General Wolfe in 1759, and four years later the whole territory of Canada became a possession of Great Britain by the treaty of Paris (1763). By the treaty of Utrecht in 1713, Hudson Bay, Nova Scotia, and Newfoundland were ceded to Great

Britain, the provinces of New Brunswick and Prince Edward Island being subsequently formed out of it. Upon this Gallic foundation the English system of government was laid; and the strength of that system is shown in the fact that British institutions have been planted and assimilated alike in old French Canada and in those parts subsequently colonized by Great Britain herself.

British Columbia was formed into a crown colony in 1858, having previously been a part of the Hudson Bay Territory, and was united to Vancouver Island in 1866. By the British North America Act, passed in 1867, all of the British continental provinces were united under the title of *The Dominion of Canada*, and provision was made in the Act for the admission at any subsequent period of the other provinces and territories of British North America.

CONSTITUTION OF CANADA AND UNITED STATES CONTRASTED.—A very great difference between our Constitution and that of Canada, writes Ex-President W. H. Taft, is that, while the guaranties of civil liberty in our own Constitution are all express, as insisted on by Jefferson and Madison, though not thought necessary by Hamilton, they find such sanction as they have in the unwritten British Constitution, and are left not to the courts, but to the protection of an executive veto of provincial or dominion legislation. This really gives an opportunity for much more radical legislation in Canada with reference to vested rights than we have in this country. This may not be so important now as it will be later, when a revulsion against the danger of corporate political control and a plutocracy, which is likely to threaten Canada in the future, shall give rise to not only needed regulation and restriction, but also to such excessive and indiscriminate attack upon capital investment such as we have seen in some parts of this country.¹

SYNOPSIS OF CANADA

The Dominion of Canada occupies the whole of the northern part of the North American continent (with the exception of Alaska and part of the coast of Labrador), from 49° north latitude to the Arctic seas, and from the Pacific to the Atlantic.

CLIMATE.—The climate in the eastern and central portions of the Dominion presents greater extremes of cold and heat than in corresponding latitudes in Europe; but in the southwestern portion of the prairie region and the southern portions of the Pacific slope the climate is milder. Spring, summer, and autumn are of about seven to eight months' duration, and the winter four to five months. The mean temperature of Montreal is 17.6°F. in winter and 69.8°F. in summer. The mildest climate is enjoyed by British Columbia, with extremes of 28.4°F. and 77°F.

POLITICAL DIVISIONS OF CANADA

PROVINCE	AREA (sq. miles)	POPULATION (1911)	CAPITAL
ONTARIO	407,262	2,523,274	Toronto
QUEBEC	706,834	2,003,232	Quebec
NOVA SCOTIA	21,428	492,338	Halifax
NEW BRUNSWICK	27,985	351,889	Fredericton
PRINCE EDWARD ISLAND	2,184	93,728	Charlottetown
BRITISH COLUMBIA	355,855	392,480	Victoria
MANITOBA	251,812	455,614	Winnipeg
ALBERTA	255,285	374,663	Edmonton
SASKATCHEWAN	231,700	492,432	Regina
YUKON	207,076	8,512	Dawson
NORTHWEST TERRITORIES	1,242,224	13,481	.....
Totals	3,729,665	7,206,643	

CAPITAL OF THE DOMINION.—*Ottawa*. Population, 86,062.

GOVERNMENT.—Canada is a self-governing Dominion within the British Empire, its constitution resting on the British North America Act of 1867, under which the Dominion of Canada came into being on July 1, 1867 (Dominion Day). The Executive power is vested in a Governor-General appointed by the Sovereign and aided by a Privy Council.

The Dominion Parliament consists of a Senate and a House of Commons. The *Senate* consists of 87 members, nominated for life by the Governor-General, distributed between the various provinces thus: 24 for Ontario, 24 for Quebec, 10 for Nova Scotia, 10 for New Brunswick, 4 for Prince Edward Island, 3 for British Columbia, 4 for Manitoba, 4 for Alberta, and 4 for Saskatchewan. The *House of Commons* is chosen every five years at longest, and at present consists of 221 members. The Houses of Parliament were destroyed by fire in 1915, the new buildings being started the following year.

PRODUCTION AND INDUSTRY.—In the whole of Canada more than 35,000,000

¹W. H. Taft, in the *National Geographic Magazine* (March, 1916).

acres are sown to *field crops* (wheat, oats, barley, and other grain, hay, clover, potatoes, and other roots, fodder corn, and alfalfa). A considerable number of horses, cattle, sheep, and pigs are raised. According to the census of 1911 there were 3,628 butter and cheese factories and 5 factories for preserved milk and cream, the total value of all dairy products being about \$40,000,000. The *fisheries* are an important source of wealth and include salmon, cod, herrings, mackerel, and lobsters. The *lumber* trade is very considerable, and includes lath, shingles, cross ties, telegraph and telephone poles, besides wood used in the pulp industry.

The chief *minerals* produced are gold, silver, copper, nickel, lead, iron, coal, Portland cement, asbestos and asbestic, petroleum, natural gas, clay products, and stones.

The industrial establishments of all kinds number about 20,000, employing more than 515,000 persons. For distribution of these, see below

CHIEF CITIES AND INDUSTRIES OF CANADA

CITY OR TOWN	POP. IN THOUSANDS	PROVINCE	PRINCIPAL INDUSTRIES
BRANDON . . .	15	Manitoba	Ale, pumps, machinery. (Wheat shipping.)
CALGARY . . .	56	Alberta	(Important railroad and trade centre.)
CHARLOTTETOWN . . .	11	P. E. Island	Pork-packing, condensed milk, lumber.
DAWSON CITY . . .	3	Yukon	Mining.
EDMONTON . . .	54	Alberta	(Railroad, banking, outfitting centre.)
FREDERICTON . . .	7	New Brunswick	Lumber, boat factories.
GLACE BAY . . .	17	Nova Scotia	Fishing, machine works.
HALIFAX . . .	47	Nova Scotia	Iron and steel, paper, leather, sugar, shipbuilding, fishing.
HAMILTON . . .	101	Ontario	Iron and tool works, cotton, tobacco.
HULL . . .	20	Quebec	Pulp and paper mills, lumber.
LETHBRIDGE . . .	9	Alberta	Coal mining, live stock, sugar beets, wool.
LONDON . . .	56	Ontario	Chemical works, petroleum, iron foundries. (Sulphur springs.)
MONCTON . . .	11	New Brunswick	Car and machine shops, wire fence.
MONTREAL . . .	650	Quebec	Woolen and cotton goods, breweries, boots and shoes, clothing, sugar.
MOOSEJAW . . .	17	Saskatchewan	Flour, stock-yards.
NEW WESTMINSTER . . .	17	British Columbia	Fish canneries, saw mills, iron works.
OTTAWA . . .	102	Ontario	Glass, potteries, organs and pianos.
PRINCE ALBERT . . .	10	Saskatchewan	Lumber, flour.
QUEBEC . . .	100	Quebec	Iron, leather, cotton.
REGINA . . .	26	Saskatchewan	(Railroad and trade centre.)
ST. JOHN . . .	42	New Brunswick	Fisheries, saw mills, boots and shoes, cotton and woollen goods, engines.
SASKATOON . . .	21	Saskatchewan	Brick works, wood-working.
SYDNEY . . .	18	Nova Scotia	Steel works, coal mining, iron furnaces.
TORONTO . . .	470	Ontario	Tanneries, canning and packing, foundries, breweries, distilling.
VANCOUVER . . .	114	British Columbia	Shipbuilding, canneries, cooperages, furniture, sugar refineries, glass.
VICTORIA . . .	60	British Columbia	Fish canneries, shipbuilding, saw-mills, iron, chemical works.
WINNIPEG . . .	163	Manitoba	(Important railroad centre; large grain market.)

COMMERCE.—The external trade of Canada is chiefly with the following countries: British Empire, United States, Argentina, France, Germany, Italy, Japan, Mexico, Netherlands, China, Belgium, Switzerland, Dutch East Indies, Cuba, Russia, Spain, and Austria-Hungary.

CHIEF IMPORTS.—Raw wool and cotton, cotton and woollen manufactures, silk and manufactures; iron, steel and manufactures, coal and coke, breadstuffs, tea, provisions, fruits and nuts; flax, hemp, jute and manufactures, timber, spirits and wines, glass and manufactures, oils, paper, leather and manufactures, furs and manufactures, drugs and chemicals, tobacco, and books.

CHIEF EXPORTS.—Wheat, manufactures of wood, wheat flour, bacon, cheese, cattle, sheep, eggs, butter, oats, hay, beef, fruits, salmon, codfish, lobsters, coal, gold-bearing quartz, copper, silver, leather manufactures, hides and skins, iron and manufactures, agricultural implements, paper, and foreign produce.

COMMUNICATIONS.—There are more than 30,000 miles of railway; 10,500 miles of government telegraph lines, and 38,500 miles operated by chartered telegraph companies. There are about 1½ million miles of telephone wire in use throughout the Dominion. See *Table of Railways*, p. 333.

NEWFOUNDLAND

(See Map, p. 97)

Newfoundland is the oldest British colony; it was discovered by Cabot in 1497, the first land sighted being hailed as *Prima Vista*—the present Cape Bonavista. Exclusive sovereignty was ceded by France in 1713 by the treaty of Utrecht. The island is situated on the northeast side of the Gulf of St. Lawrence, and is separated from the North American continent by the Strait of Belle Isle. The island is about 317 miles long and 316 miles broad; area, 42,750 square miles; population, 239,000. The chief capes are: *Cape Bauld* on the north, *Cape Race* on the southeast, and *Cape Ray* on the southwest. The coast is extremely rugged, and the coastal regions are mountainous. The climate is healthy, the thermometer seldom falling below zero in winter, and ranging in summer from 70° to 80°F.

INDUSTRIES.—The principal industries are the cod, herring, and seal fisheries, and the manufacture of cod-liver oil. Agriculture, mining, and lumbering are also engaged in. Large pulp and paper mills are in operation. There are 830 miles of railway, 4,300 miles of telegraph lines, and 900 miles of telephone wire.

GOVERNMENT.—The colony is administered by a Governor, assisted by an Executive Council (not exceeding nine members), a Legislative Council (not exceeding 24 members), and an elected House of Assembly consisting of 36 representatives. Members of the Legislative Council receive \$120 per session; members of the Legislative Assembly receive \$200 or \$300 per session, according as they are resident or not in St. John's.

St. John's (population, 32,000) is the capital. Other towns are Harbour Grace (4,500), Carbonear (3,500), Twillingate (3,350), and Bonavista (3,900).

LABRADOR

(See Map, p. 98)

Labrador is a dependency of Newfoundland, and forms the most easterly part of America; it extends from Cape Chidley on the north to Blanc Sablon on the south, being a coastal strip along the west of the Labrador peninsula, bounded on the west by the province of Quebec. Its area is 120,000 square miles; population, 4,000. It possesses valuable cod, herring, trout, and salmon fisheries.

THE UNITED STATES OF AMERICA

(See Maps, pp. 130-133)

EARLY COLONIZATION.—Had it not have been for the wide expanse of water dividing the American continent from Asia, it is probable that the early European visitors would have found the land teeming with Asiatics. Although Columbus discovered the new continent in the fifteenth century, no definite European settlement was attempted until the last quarter of the sixteenth century when determined efforts were made by the leading maritime powers of Western Europe to turn to account the potential wealth of the newly discovered land. Of these enterprising nations, the English secured a paramount influence, through their natural aptitude for colonization. *Jamestown* was founded in 1607, and many royalist settlements were established in the district which had been named *Virginia*, after Queen Elizabeth. Step by step with the church and royalist foundations in the south a corresponding series of Puritan and Separatist centres was established in the north. The small band of Pilgrim Fathers, who landed at Plymouth Rock in 1620, was soon followed by a stream of God-fearing and determined settlers, chiefly from towns on the east coast of Eng-

land, and *New England* became rapidly prosperous. Between these two settlements the Dutch had established themselves in *New Netherlands* (1621), and the Swedes in *New Sweden* (1638), other English foundations were *Maryland* (1632), *Carolina* (1663), *New York* (1664), *New Jersey* (1665), and *Pennsylvania* (1681). From that date European enterprise may be said to have ceased for half a century, and *Georgia* (1732) was the last of the English settlements.

DECLARATION OF INDEPENDENCE.—“Taxation without representation” had long been the keynote of the English constitution; and when the traditional rights of the English colonists were rudely trampled upon by an autocratic ministry and a callous German king, the colonists as a last resource revolted and proclaimed their independence (July 4, 1776). For seven years the conflict raged, but in 1783 by the treaty of Paris the independence of the United States was recognized by Great Britain.

The War of Independence was not merely a victory for American arms, but it was a still greater victory for the deep-rooted ideals of democracy which were sacred to the

British people on both sides of the Atlantic. From this beginning the United States has grown from thirteen states to its present colossal size; while its importance as a world power has kept pace with its territorial growth. Since the War of 1812—a war arising out of the hostilities between Britain and France, owing mainly to the rival interpretation of the law of allegiance in connection with the impressment of British subjects from American ships—the two nations have lived at peace; and it is a remarkable fact that along the wide frontier between the United States and the British Dominion of Canada there is not a single threatening gun on either side of the border.

WESTERN MIGRATION.—Until the Union was formed and we had consciously set out upon a separate national career, we moved but timidly across the nearer hills. Our most remote settlements lay upon the rivers and in the open glades of Tennessee and Kentucky. It was in the years that immediately succeeded the war of 1812 that the movement into the West began to be a mighty migration. Till then our eyes had been more often in the East than in the West. Not only were foreign questions to be settled and our standing among the nations to be made good, but we still remained acutely conscious and deliberately conservative of our Old-World connections. For all we were so new a people and lived so simple and separate a life, we had still the sobriety and the circumspect fashions of action that belong to an old society. We were, in government and manners, but a disconnected part of the world beyond the seas. Its thought and habit still set us our standards of speech and action. And this, not because of imitation, but because of actual and long-abiding political and social connection with the mother country.

Since the war of 1812, undertaken as if to set us free to move westward, seven States had been admitted to the Union: and the whole number of States was advanced to twenty-four. Eleven new States had come into partnership with the old thirteen. The voice of the West rang through all our counsels; and, in Jackson, the new partners took possession of the Government. It is worth while to remember how men stood amazed at the change: how startled, chagrined, dismayed the conservative States of the East were at the revolution they saw effected, the riot of change they saw set in; and no man who has once read the singular story can forget how the eight years Jackson reigned saw the Government, and politics themselves, transformed. For long, the story being written in the regions where the shock and surprise of the change was greatest—the period of this momentous revolution was spoken of amongst us as a period of degeneration, the birth-time of a deep and permanent demoralization in our politics. But we see it differently now. Whether we have any taste or stomach for that rough age or not, however much we may wish that the old order might have stood, the generation of Madison and Adams has been prolonged, and the good tradition of the early days handed on unbroken and unsullied, we now know that what the nation underwent in that day of change was not degeneration, great and perilous as were the errors of the time, but regeneration. The old order was changed, once and for all. A new nation stepped, with a touch of swagger, upon the stage—a nation which had broken alike with the traditions and with the wisely wrought experience of the Old World, and which, with all the haste and rashness of youth, was minded to work out a separate policy and destiny of its own.

It was then we swung out into the main paths of our history. The new voices that called us were first silvery, like the voice of Henry Clay, and spoke old familiar words of eloquence. The first spokesmen of the West even tried to con the classics, and spoke incongruously in the phrases of politics long dead and gone to dust, as Benton did. But presently the tone changed, and it was the truculent and masterful accents of the real frontiersman that rang dominant above the rest, harsh, impatient, and with an evident dash of temper. The East slowly accustomed itself to the change; caught the movement, though it grumbled and even trembled

at the pace; and managed most of the time to keep in the running. But it was always henceforth to be the West that set the pace.¹

BINDING OF EAST AND WEST.—And so, upon every hand and throughout every national question, was the commerce between East and West made up: that commerce and exchange of ideas, inclinations, purposes, and principles which has constituted the moving force of our lives as a nation. Men illustrate the operation of these singular forces better than questions can: and no man illustrates it better than Abraham Lincoln.

“Great captains with their guns and drums
Disturb our judgment for the hour;
But at last silence comes:
These are all gone, and, standing like a tower,
Our children shall behold his fame,
The kindly-earnest, brave, foreseeing man,
Sagacious, patient, dreading praise not blame,
New birth of our new soil, the first American.”

This, surely, is the moral of our history. The East has spent and has been spent for the West; has given forth her energy, her young men and her substance, for the new regions that have been a-making all the century through. But has she learned as much as she has taught, or taken as much as she has given? Look what it is that has now at last taken place. The westward march has stopped, upon the final slopes of the Pacific; and now the plot thickens. Populations turn upon their old paths; fill in the spaces they passed by neglected in their first journey in search of a land of promise; settle to a life such as the East knows as well as the West—nay, much better. With the change, the pause, the settlement, our people draw into closer groups, stand face to face, to know each other and be known: and the time has come for the East to learn in her turn; to broaden her understanding of political and economic conditions to the scale of a hemisphere, as her own poet bade. Let us be sure that we get the national temperament; send our minds abroad upon the continent, become neighbours to all the people that live upon it, and lovers of them all, as Lincoln was.¹

SYNOPSIS OF THE UNITED STATES

(See Maps, pp. 129-237)

The United States of America is a Federal Republic consisting of 48 States and one Federal District (of which 13 are Original States, 7 were admitted without previous organization as Territories, and 28 were admitted after such organization), and of two organized Territories (Alaska and Hawaii) and dependencies.

THE UNITED STATES OF AMERICA
Area, Population, etc., of States, Territories, and Possessions

DIVISION AND STATE	DATE OF ADMISSION	AREA (sq. miles)	POPULATION IN 1910	CAPITAL
NEW ENGLAND				
Maine	1820	33,040	724,371	Augusta
New Hampshire	1776*	9,341	430,572	Concord
Vermont	1791	9,564	355,956	Montpelier
Massachusetts	1776*	8,266	3,366,416	Boston
Rhode Island	1776*	1,248	542,610	Providence
Connecticut	1776*	4,965	1,114,756	Hartford
MIDDLE ATLANTIC				
New York	1776*	49,204	9,113,614	Albany
New Jersey	1776*	8,224	2,537,167	Trenton
Pennsylvania	1776*	45,126	7,665,111	Harrisburg
EAST NORTH CENTRAL				
Ohio	1803	41,040	4,767,121	Columbus
Indiana	1816	36,354	2,700,876	Indianapolis
Illinois	1818	56,665	5,618,591	Springfield
Michigan	1837	57,980	2,810,173	Lansing
Wisconsin	1848	56,066	2,333,860	Madison
WEST NORTH CENTRAL				
Minnesota	1858	84,682	2,075,708	St. Paul
Iowa	1846	56,147	2,224,771	Des Moines
Missouri	1821	69,420	3,293,335	Jefferson City
North Dakota	1889	70,837	577,050	Bismarck
South Dakota	1889	77,615	583,888	Pierre
Nebraska	1867	77,520	1,192,214	Lincoln
Kansas	1861	82,158	1,690,949	Topeka
SOUTH ATLANTIC				
Delaware	1776*	20,320	202,322	Dover
Maryland	1776*	12,327	1,295,346	Annapolis
District of Columbia . . . . .	.....	70	331,069	
Virginia	1776*	42,627	2,061,612	Richmond
West Virginia	1863	24,170	1,221,119	Charleston
North Carolina	1776*	52,426	2,206,287	Raleigh
South Carolina	1776*	30,989	1,515,400	Columbia
Georgia	1776*	59,265	2,609,121	Atlanta
Florida	1845	58,666	752,619	Tallahassee
EAST SOUTH CENTRAL				
Kentucky	1792	40,598	2,289,905	Frankfort
Tennessee	1796	42,022	2,184,789	Nashville
Alabama	1819	51,998	2,138,093	Montgomery
Mississippi	1817	46,865	1,797,114	Jackson

¹Woodrow Wilson, "Mere Literature and other Essays" (1896).

THE UNITED STATES OF AMERICA—Continued
Area, Population, etc., of States, Territories, and Possessions

DIVISION AND STATE	DATE OF ADMISSION	AREA (sq. miles)	POPULATION IN 1910	CAPITAL
WEST SOUTH CENTRAL				
Arkansas	1836	53,335	1,574,449	Little Rock
Louisiana	1812	48,506	1,656,388	Baton Rouge
Oklahoma	1907	70,057	1,657,155	Oklahoma City
Texas	1845	265,896	3,896,542	Austin
MOUNTAIN				
Montana	1889	146,997	376,053	Helena
Idaho	1890	83,889	325,594	Boise
Wyoming	1890	97,914	145,965	Cheyenne
Colorado	1876	103,948	799,024	Denver
New Mexico	1912	122,634	327,301	Santa Fé
Arizona	1912	113,956	204,354	Phoenix
Utah	1896	84,990	373,351	Salt Lake City
Nevada	1864	110,699	81,875	Carson City
PACIFIC				
Washington	1889	69,127	1,141,990	Olympia
Oregon	1859	96,609	672,765	Salem
California	1850	158,297	2,377,549	Sacramento
Totals		3,026,789†	91,972,266	
TERRITORIES AND POSSESSIONS				
ACQUIRED				
Alaska	1867	590,884	64,356	Juneau
Hawaiian Islands	1898	6,449	191,999	Honolulu
Philippine Islands	1899	115,026	7,635,426	Manila
Porto Rico	1899	3,435	1,118,012	San Juan
Virgin Islands	1917	142	32,786	.....
Guam	1899	210	11,760	Agaña
Tutuilā (American Samoa)	1900	77	6,668	Pagapago
Panama Canal Zone	1904	436	56,000	.....
Grand Totals		3,743,448	101,089,183	

*One of the thirteen Original States, which signed the Declaration of Independence on July 4, 1776. Delaware, Pennsylvania, and New Jersey ratified the Constitution in 1787; Georgia, Connecticut, Massachusetts, Maryland, South Carolina, New Hampshire, Virginia, and New York, in 1788; North Carolina, in 1789; and Rhode Island, in 1790.
†Gross area, including both land and water surface.

CAPITAL OF THE UNITED STATES.—Washington, D. C. Population, 365,000.

GOVERNMENT.—By the Constitution of the United States the government is entrusted to three separate authorities—the Executive, the Legislative, and the Judicial.

The Executive power is vested in a President, who is elected every four years, and is eligible for reelection. The number of electors appointed by each separate State is equal to the number of Senators and Representatives to which the State is entitled in Congress; but no Senator or Representative, or office-holder under the government, can be an elector. The election takes place on the first Tuesday after the first Monday in November of the year preceding the year in which the Presidential term expires.

THE PRESIDENT.—The President must be 35 years of age and a native citizen of the United States. He receives a salary of \$75,000, with a traveling allowance of \$25,000. He is commander-in-chief of the national forces, and has a veto on all laws passed by Congress, although a bill may become a law in spite of his veto on being afterward passed by a two-thirds majority of each house of Congress. The administration is conducted under the immediate authority of the President by a Cabinet of ten ministers chosen by him, and holding office at his pleasure, though confirmed by the Senate. A minister cannot sit in either house of the legislature.

THE VICE-PRESIDENT.—The Vice-President is chosen in the same manner as the President; he is *ex-officio* president of the Senate, and in case of death or resignation of the President he assumes his office for the remainder of the term, and the Senate elects a temporary Vice-President.

THE SENATE.—The Senate consists of 96 members—two chosen by each State legislature for six years. The salary of a Senator is \$7,500 per annum, with mileage of 20 cents per mile, coming or returning, for each regular session.

THE HOUSE OF REPRESENTATIVES.—The House of Representatives at present consists of 436 members. The number of Representatives for each state is allotted in proportion to its population—at present one for 173,901. The salary of a Representative is \$7,500 per annum, with mileage as for the Senators.

THE JUDICATURE.—The Federal Judiciary consists of three sets of Federal Courts: (1) The *Supreme Court* at Washington, D. C., consisting of a Chief Justice and eight Puisne Judges, with original jurisdiction where a State is a party to the suit, and with appellate jurisdiction from inferior Federal Courts. (2) The *Circuit Courts* of Appeal, dealing with appeals from District Courts, and consisting of the Justice of the Supreme Court for the circuit and all the Circuit and District Judges within the circuit. (3) The *District Court*, 87 in number, served by a District Court Judge.

NATIONAL PARKS OF THE UNITED STATES

PARK	LOCATION	AREA (acres)
CASA GRANDE RUIN	Arizona	480
CRATER LAKE NATIONAL PARK	Oregon	159,360
GENERAL GRANT NATIONAL PARK	California	2,536
GLACIER NATIONAL PARK	Montana	915,000
HAWAII NATIONAL PARK	Territory of Hawaii . . . . .	.....
HOT SPRINGS RESERVATION	Arkansas	911
LASSEN VOLCANIC NATIONAL PARK	California	82,880
MESA VERDE NATIONAL PARK	Colorado	42,376
MOUNT RAINIER NATIONAL PARK	Washington	207,360
PLATT NATIONAL PARK	Sulphur, Oklahoma	848
ROCKY MOUNTAIN NATIONAL PARK	Colorado	229,000
SEQUOIA NATIONAL PARK	California	161,597
SULLYS HILL PARK	North Dakota	780
WIND CAVE NATIONAL PARK	South Dakota	10,522
YELLOWSTONE NATIONAL PARK	Wyoming, Montana, Idaho	2,142,720
YOSEMITE NATIONAL PARK	California	719,622

AGRICULTURAL PRODUCTS.—The soil and climate of the United States are so varied that all grains, fruits, and vegetables known to the temperate zone, as well as some found in the semi-tropics, can be abundantly produced. Every stage of agriculture is represented, from the clearing of primeval forest to tillage and horticulture of the most advanced and scientific kind.

AGRICULTURAL PRODUCTS OF THE UNITED STATES

(See Map, p. 87)

PRODUCT	WHERE GROWN
BARLEY	California, Iowa, Michigan, Minnesota, New York, Wisconsin, etc.
COTTON	Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Missouri, Oklahoma, North Carolina, South Carolina, Tennessee, Texas, Virginia.
FLAX	Kentucky, Missouri, Tennessee, etc.
FRUIT	California, Delaware, Florida, New York, Ohio, Pennsylvania.
HEMP	Kentucky, Missouri, Tennessee, etc.
HOPS	California, Michigan, New York, Oregon, Washington, Wisconsin, etc.
MAIZE	Illinois, Indiana, Iowa, Kansas, Kentucky, Minnesota, Missouri, Nebraska, Ohio, South Dakota, Tennessee, Texas.
OATS	Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Montana, Nebraska, New York, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Dakota, Texas, Washington, Wisconsin.
POTATOES	Illinois, Iowa, Maine, Michigan, New York, Pennsylvania, Wisconsin.
RICE	Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, etc.
RYE	Illinois, Iowa, Kansas, New York, Pennsylvania, Wisconsin, etc.
SUGAR CANE	Alabama, Georgia, Hawaii, Louisiana, Philippine Islands, Porto Rico.
TOBACCO	Connecticut, Florida, Georgia, Indiana, Kentucky, Maryland, Massachusetts, Missouri, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, West Virginia, Wisconsin.
VINES	California, New York, Ohio, etc.
WHEAT	California, Colorado, Idaho, Indiana, Kansas, Kentucky, Maryland, Michigan, Minnesota, Missouri, Montana, Nebraska, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Dakota, Tennessee, Texas, Virginia.

MINERALS.—The mineral wealth of the United States is practically inexhaustible. Both as regards quality and quantity, its minerals are unsurpassed by any other country in the world. With the exception of one or two minor minerals, the United States produces every mineral that is needed in industry. It produces 66 per cent of the world's output of petroleum, 60 per cent of its copper, 40 per cent of its coal and iron, and 32 per cent of its lead and zinc.

CHIEF MINERAL PRODUCTS OF THE UNITED STATES

(See Map, p. 87)

MINERAL	WHERE FOUND
ALUMINUM	Alabama, Arkansas, Georgia.
COAL	Alabama, Arizona, Colorado, Illinois, Indiana, Iowa, Maryland, Missouri, Ohio, Pennsylvania, Tennessee, West Virginia.
COPPER	Arizona, Michigan, Montana.
GOLD	California, Colorado, Idaho, Montana, Nevada, North Dakota, South Dakota.
GRANITE	Connecticut, Georgia, Maine, Massachusetts, New Hampshire, New York, Vermont.
IRON	Alabama, Michigan, Minnesota, New York, Pennsylvania, Wisconsin.
LEAD	Colorado, Idaho, Illinois, Kansas, Missouri, Montana, Utah, Wisconsin.
MANGANESE	Arkansas, California, Georgia, Virginia.
MARBLE	California, Georgia, Maryland, Massachusetts, Pennsylvania, Tennessee, Vermont.
NATURAL GAS	Indiana, Kansas, Missouri, New York, Ohio, West Virginia.
PETROLEUM	California, Indiana, Kansas, Kentucky, Missouri, New York, Ohio, Pennsylvania, Texas, West Virginia.
PHOSPHATE OF LIME	Florida, South Carolina, Tennessee.
PLATINUM	California, Nevada, Oregon.
QUICKSILVER	California, Nevada, Texas.
SALT	Kansas, Michigan, New York.
SILVER	Colorado, Idaho, Montana, Nevada, South Dakota.
TIN	Alaska.
ZINC	Arkansas, Illinois, Kansas, Missouri, Wisconsin.

MANUFACTURES.—The manufactures of the United States are on a colossal scale, backed by a gigantic capital. Year by year America has gradually freed itself from dependence upon the manufacturing industries of Europe. With few exceptions, the industries are carried on with the natural products of the country. A battleship, a railroad, an automobile (excepting the tires), or a factory can be built entirely from the products of American mines and forests.

The adaptability and resourcefulness of American chemists and engineers has been proved during the Great War as never before. A few illustrations will point this fact: Barium salts, needed for a variety of purposes, were formerly imported in large quantities, although the raw material, barytes, occurs in extensive deposits in this country. We now manufacture these salts in California, Colorado, Illinois, West Virginia, Pennsylvania, New York, and Tennessee, the new industry not only meeting the domestic demand, but also furnishing large quantities of barium compounds for export, and we are substituting domestic barytes for the foreign material for all purposes.

A NATION OF INVENTORS.—During the last half century the people of the United States have been responsible for two thirds of all the revolutionary epoch-making inventions of the world, ranging from the telephone and the incandescent lamp to the aeroplane and high-speed steel. The following list tells its own story:

Aeroplane (Wright Brothers, 1903), *air brake* (Westinghouse, 1869), *artificial graphite* (Acheson, 1896), *automatic car-coupler* (Janney, 1873), *automatic knot-tying harvester machine* (Appleby, 1880), *block signals for railways* (Robinson, 1872), *buttonhole sewing machine* (Reece, 1881), *calcium carbide* (Willson, 1888), *carborundum* (Acheson, 1891), *cash register* (Patterson, 1885), *celluloid* (Hyatt, 1870), *chain-stitch shoe-sewing machine* (French & Myers, 1881), *chrome tanning* (Schulz, 1884), *continuous-process match machine* (Beecher, 1888), *disk plows*, modern type (Hardy, 1896), *dry-air process for blast furnace* (Gayley, 1804),

1Secretary F. K. Lane, in the *National Geographic Magazine* (December, 1915).

electric furnace reduction (Cowles, 1885), electric lamp (Brush, 1879), electric welding (Thomson, 1880), electrolytic alkali production (Castner, 1890), harveyized armour plate (Harvey, 1891), high-speed steel (Taylor & White, 1901), incandescent lamp (Edison, 1880), machine for making barbed wire (Glidden, 1875), motion-picture machine (Edison, 1893), recording and adding machine (Burroughs, 1888), rotary converter (Bradley, 1887), single-type composing machine (Lanston, 1887), split-phase induction motor (Tesla, 1887), talking machine (Edison, 1878), telephone (Bell, 1876), transparent photograph film (Eastman, 1888), trolley car (Van Depocle & Sprague, 1884-1887), type-bar casting (Mergenthaler, 1885), typewriter (Sholes, 1878), water gas (Lowe, 1875), and well machine (Goodyear, 1871).

NEW ENGLAND STATES
CHIEF CITIES AND INDUSTRIES

CITY OR TOWN	STATE	PRINCIPAL INDUSTRIES
ADAMS	Mass.	Cotton.
AMESBURY	Mass.	Flannels, broadcloth, cassimeres, carriages.
ANSONIA	Conn.	Brass, copper, iron.
ARLINGTON	Mass.	Market gardening, chrome works.
ATTLEBORO	Mass.	Jewellery, clocks.
AUBURN	Me.	Boots and shoes.
AUGUSTA	Me.	Shoes, cotton and paper mills.
BANGOR	Me.	Lumber, wood pulp.
BARRE	Vt.	Granite.
BATH	Me.	Shipbuilding, lumber, brass, iron.
BELFAST	Me.	Shipbuilding, granite.
BELLOWS FALLS	Vt.	Wood pulp.
BENNINGTON	Vt.	Pottery.
BERLIN	N. H.	Paper, lumber.
BEVERLY	Mass.	Shoes and shoe machinery, shipping, fishing.
BOSTON	Mass.	Cotton, woollen, leather, clothes, printing and publishing.
BRAintree	Vt.	Organs and pianos.
BRIEGHTEPORT	Conn.	Ammunition, sewing machines, automobiles, cutlery, fire-arms, typewriters, musical instruments.
Bristol	Conn.	Hosiery, steel, hardware, fishing-rods.
Bristol	R. I.	Cotton, woollen, rubber goods.
BROCKTON	Mass.	Men's shoes, shoe machinery, tools, rubber.
BRUNSWICK	Me.	Cotton, paper.
BURLINGTON	Vt.	Furniture, doors, blinds and sashes, cotton.
CALAIS	Me.	Shipbuilding, lumber.
CAMBRIDGE	Mass.	Glass, furniture, organs, printing.
CENTRAL FALLS	R. I.	Woollens, cotton, and silk goods.
CHICOPPEE	Mass.	Cotton, rifles, swords, automobiles.
CLINTON	Mass.	Woollens, wire cloth, ginghams, carpets.
CONCORD	Mass.	General trade.
CONCORD	N. H.	Carriages and wagons, granite quarrying, shoes.
CORNING	R. I.	Market products, cotton goods.
DANBURY	Conn.	Men's hats, iron, brass, silver-plated ware.
DERBY	Conn.	Pianos and organs, woollens, pins, hosiery, typewriters.
DOVER	N. H.	Cotton and woollen goods.
EASTPORT	Me.	Lumber, fish.
EXETER	N. H.	Potter's ware, cotton goods.
EVERETT	Mass.	Steel, iron, automobiles, varnishes, boots and shoes.
FALL RIVER	Mass.	Cotton, woollen, bobbins, shuttles, rubber, wire, rope, machinery.
FITCHBURG	Mass.	Cotton.
FRANKLIN	N. H.	Farm products.
GARDINER	Me.	Ice.
GLOUCESTER	Mass.	Fishing, shoes, oil, twine, machinery, granite.
GUILDFORD	Conn.	Iron and brass castings, furniture, cannon.
HARTFORD	Conn.	Insurance, automobiles, steam-engines, small arms, bicycles, rubber goods, typewriters.
HOLYOKE	Mass.	Paper, cotton, woollen.
KEENE	N. H.	Woollen mills, carriage making.
LACONIA	N. H.	Cotton, cars.
LAWRENCE	Mass.	Cotton and woollen mills.
LEOMINSTER	Mass.	Furniture, pianos.
LEWISTON	Me.	Cotton and woollen goods.
LEXINGTON	Mass.	Agriculture.
LINCOLN	R. I.	Cotton.
LOWELL	Mass.	Cotton, woollen, carpet and dye works, hosiery.
LYNN	Mass.	Women's shoes, electrical supplies, lamps.
MANCHESTER	Conn.	Silk.
MANCHESTER	N. H.	Cotton.
MARBLEHEAD	Mass.	Fishing.
MARLBORO	Mass.	Shoes, automobiles, bicycles, carriages.
MERIDEN	Conn.	Silver-plated ware, cutlery, brass, iron, agate ware.
MILFORD	Mass.	Boots, shoes, and cotton.
MONTPELIER	Vt.	Granite.
NASHUA	N. H.	Cotton, iron and steel products, paper.
NEW BEDFORD	Mass.	Cotton, shoes, woollen, glass and paint works.
NEW BRITAIN	Conn.	Hardware, knit goods, cutlery.
NEWSBURYPOR	Mass.	Cotton, shoes, hat shops.
NEW HAVEN	Conn.	Rifles, rubber goods, ammunition, locks, automobiles.
NEW LONDON	Conn.	Shipyards, furniture, woollen, silk.
NEWPORT	R. I.	Fishing. (Fashionable coast resort.)
NORTH ADAMS	Mass.	Cotton, woollen, cigars, boots and shoes.
NORTHAMPTON	Mass.	Silk.
NORWALK	Conn.	Oysters.
NORWICH	Conn.	Cotton, woollen, firearms, leather, silk.
PAWTUCKET	R. I.	Cotton, woollen, foundries, silk.
PEABODY	Mass.	Leather, electrical supplies, glue.
PITTSFIELD	Mass.	Woollen, electrical works, paper.
PLYMOUTH	Mass.	Cordage, wire nails, fisheries.
PORTLAND	Me.	Lumbering, quarrying, farming, paper, locomotives.
PORTSMOUTH	N. H.	Boots and shoes, cotton, malt liquors.
PROVIDENCE	R. I.	Iron, steel, silverware, heavy machinery, cotton, leather, dyeing and printing works, rubber.
PUTNAM	Conn.	Textile and silk goods.
QUINCY	Mass.	Granite, ship-building.
REVERE	Mass.	(Suburban homes.)
ROCHESTER	N. H.	Woollen goods, shoes.
ROCKLAND	Me.	Lime, ice.
RUTLAND	Vt.	Scales, car wheels, farm tools, lumber, quarries.
ST. ALBANS	Vt.	Butter, car shops.
ST. JOHNSBURY	Vt.	Scales.
SALEM	Mass.	Tanneries, cordage works, shoes.
SOMERSWORTH	N. H.	Cotton goods.
SOUTHERIDGE	Mass.	Textile goods, optical works.
SOUTH KINGSTON	R. I.	Woollen goods.
SPRINGFIELD	Mass.	Army rifles, meat packing, automobiles, railway cars, cotton, akates, electrical supplies. (U. S. arsenal.)
STAMFORD	Conn.	Locks, typewriters, woollens.
TAUNTON	Mass.	Cotton, nails, stoves, cutlery.
WAKEFIELD	Mass.	Rattan goods.
WALLINGFORD	Conn.	Silver-plated ware, edge-tools.
WALTHAM	Mass.	Watches, cotton, furniture.
WATERBURY	Conn.	Watches, clocks.
WATERVILLE	Me.	Cotton goods, cars.
WESTEALY	R. I.	Textile goods, printing-presses.
WESTFIELD	Mass.	Whips, cigars.
WOBRUN	Mass.	Foundry products, machinery, leather.
WOONSOCKET	R. I.	Cotton, woollen goods, furniture.
WORCESTER	Mass.	Foundries, wire, boots and shoes, clothing, woollens.

MIDDLE ATLANTIC STATES
CHIEF CITIES AND INDUSTRIES

CITY OR TOWN	STATE	PRINCIPAL INDUSTRIES
ALBANY	N. Y.	Car shops, stoves, brewing, printing and bookbinding.
AMSTERDAM	N. Y.	Brooms, knit goods, carpets.
ATLANTIC CITY	N. J.	(Seaside resort.)
AUBURN	N. Y.	Agricultural implements.
BINGHAMTON	N. Y.	Refined oils, glass, scales, cigars, sheet metal.
BUFFALO	N. Y.	Railway cars, elevators, flour, starch, soap, stockyards, iron and steel.
CAMDEN	N. J.	Furniture, chemicals, pens, machinery, shipbuilding
CHESTER	Pa.	Textiles, steel, ships.
COHOES	N. Y.	Boots and shoes, cotton, woollen and worsted knit goods.
DUNKIRK	N. Y.	Locomotives.
EAST ORANGE	N. J.	Pharmaceutical works.
ELIZABETH	N. J.	Steel, oil refineries, sewing machines, shipyards.
ELMIRA	N. Y.	Boots and shoes, railway cars, silk, steel-plate works.
GENEVA	N. Y.	Stoves and heaters.
GLENS FALLS	N. Y.	Paper, cement, lumber, flour, lime, quarries.
GLOVERSVILLE	N. Y.	Leather gloves and mittens.
HARRISBURG	Pa.	Cars, boilers, rolling mills, furnaces, steel, lumber, cotton and silk goods, malt liquors, machinery.
HOBOKEN	N. J.	Lead pencils, iron, leather, silk, shipbuilding.
ITHACA	N. Y.	Drop forgings, firearms, typewriters, flour, glass.
JAMESTOWN	N. Y.	Engines and furniture.
JERSEY CITY	N. J.	Iron and steel, meat packing, locomotives, soap and perfumes, abattoirs, sugar refineries.
JOHNSTOWN	N. Y.	Gloves, mittens.
JOHNSTOWN	Pa.	Iron, soft coal.
KINGSTON	N. Y.	Cement and brick.
LONG BRANCH	N. J.	(Seaside resort.)
MCKEESPORT	Pa.	Steel, iron, coal.
NEWARK	N. J.	Chemicals, leather, malt liquors, jewellery, varnish, cutlery, clothing.
NEW BRUNSWICK	N. J.	Cigars, wall-paper, rubber.
NEWBURGH	N. Y.	Woollen goods, collars, ships, agricultural implements.
NEWCASTLE	Pa.	Flour, glass, iron works.
NEW YORK	N. Y.	Map making, lithographing, cotton, wool, wood, gold and silverware, india rubber, glass and glassware, iron and steel, boats and sails, patent medicine, brass and copper, chemicals, tobacco, clothing, sugar.
NORRISTOWN	Pa.	Hosiery, carpets, woollen goods, glass.
OIL CITY	Pa.	Engines, petroleum, iron pipes.
ORANGE	N. J.	Hats.
OSWEGO	N. Y.	Starch, boxes, stockings.
PASSAIC	N. J.	Chemical works, woollens, silk, rubber works.
PATERSON	N. J.	Textiles, breweries, silk, foundry products, steel and iron.
PERTH AMBOY	N. J.	Shipping.
PHILADELPHIA	Pa.	Shipyards, locomotives, carpets, woollen and silk goods, sugar refineries, cigars, drugs, chemicals.
PITTSBURG	Pa.	Coal, steel, iron, glass, locomotives, cork, salt, stoves, paper, leather, lumber, electrical machinery.
POUGHKEEPSIE	N. Y.	Flour mills, machine shops, foundries.
READING	Pa.	Iron and steel works, coal, limestone quarries, potteries.
ROCHESTER	N. Y.	Photographic apparatus, seeds, clothing, boots and shoes.
ROME	N. Y.	Locomotives, brass and copper, canning factories.
SARATOGA SPRINGS	N. Y.	(Mineral springs.)
SCHENECTADY	N. Y.	Locomotives, electrical supplies.
SCRANTON	Pa.	Silk, iron, mining, machinery.
SHAMOKIN	Pa.	Iron products, hard coal.
SHELANDOAH	Pa.	Hard coal.
SOUTH BETHLEHEM	Pa.	Armour plates, ordnance, steel rails.
STAUNTON	Pa.	Flour.
SYRACUSE	N. Y.	Iron and steel, machinery, shoes, automobiles, bicycles.
TRENTON	N. J.	Potteries, wire works, watches, furniture, oil-cloth.
TROY	N. Y.	Shirts and collars, stoves.
UTICA	N. Y.	Men's clothing, cheese, roses.
WATERSTOWN	N. Y.	Paper.
WILKESBARRE	Pa.	Iron and steel, coal, silk, lace, wire rope, axles.
WILLIAMSPORT	Pa.	Furniture, doors, sash.
YONKERS	N. Y.	Yarn, carpets.

EAST NORTH CENTRAL STATES
CHIEF CITIES AND INDUSTRIES

CITY OR TOWN	STATE	PRINCIPAL INDUSTRIES
AKRON	Ohio	Woollens, cereals, automobiles, agricultural implements.
ANDERSON	Ind.	Steel, iron, glass, brick.
AURORA	Ill.	Foundries, machine shops, railroad cars, cotton mills.
BATTLE CREEK	Mich.	Cereals, farm implements.
BAY CITY	Mich.	Shipbuilding, lumber.
BELLEVILLE	Ill.	Rolling mills, stoves, machinery, glass.
BLOOMINGTON	Ill.	Farming implements, stoves, patent medicines.
CALUMET	Mich.	Copper-mining centre.
CANTON	Ohio	Safes and locks, watches, steel cars, farming implements.
CHICAGO	Ill.	Iron and steel, meat packing, lumber, grain, stock-yards, agricultural implements.
CHILLICOTHE	Ohio	Flour, steam engines.
CINCINNATI	Ohio	Men's clothing, iron and steel, boots and shoes, meat packing, malt liquors, tobacco products.
CLEVELAND	Ohio	Hardware, chemicals, automobiles, shipbuilding, iron and steel, sewing-machines, petroleum refining.
COLUMBUS	Ohio	Automobiles, shoes, iron and steel, wagons, leather, bicycles.
DAYTON	Ohio	Furniture, hops, registers, leather, paper, cigars, locks.
DECATUR	Ill.	Railroad scash iron, corn mills, agricultural implements.
DETROIT	Mich.	Railway and street cars, stoves, automobiles, breweries.
EAST ST. LOUIS	Ill.	Breweries, coal, locomotives, rolling mills.
ELGIN	Ill.	Watches, dairy products.
EVANSVILLE	Ind.	Furniture, cigars, flour, saddlery, woollen and cotton goods.
FLINT	Mich.	Woollen mills, bicycles, carriages, and wagons.
FORT WAYNE	Ind.	Machinery, automobiles, furniture, locomotives.
GRAND RAPIDS	Mich.	Furniture, gypsum quarries, bicycles, wagons, mirrors.
GREEN BAY	Wis.	Sulphite, paper, lumber.
INDIANAPOLIS	Ind.	Flour, machinery, horse, cattle, and hog market, grist mill.
JACKSON	Mich.	Flour, paper, sewer-pipe, carriages and wagons.
JOLIET	Ill.	Steel and iron goods.
KALAMAZOO	Mich.	Clothing, paper, automobiles, machinery, patent medicines.
KENOSHA	Wis.	Leather, automobiles, furniture, flour, wagons, iron and brass.
LA CROSSE	Wis.	Knit goods, flour, lumber, agricultural implements.
LA FAYETTE	Ind.	Boots and shoes, carpets, woollen goods, flour, railway cars.
LANSING	Mich.	Automobiles, flour, beet sugar, canned goods, machinery.
LORAIN	Ohio	Steel, ship-building, fishing, coal shipping.
MADISON	Wis.	Flour, boots and shoes, tools, electrical machinery.
MILWAUKEE	Wis.	Breweries, pork-packing, clothing, flour, machinery, iron and steel, leather, tobacco.
MUNCIE	Ind.	Canneries, flour, machine shops, iron and steel, glass.
MUSKEGON	Mich.	Lumber, pottery, wagons, flour, lead-works.

EAST NORTH CENTRAL STATES—Continued
CHIEF CITIES AND INDUSTRIES

CITY OR TOWN	STATE	PRINCIPAL INDUSTRIES
NEW ALBANY	Ind.	Tanneries, furniture, rolling mill, pork packing, glass.
NEWARK	Ohio	Glassware, flour, lumber, locomotives, cars.
OSHKOSH	Wis.	Flour, lumber, grass twine, agricultural implements.
PEORIA	Ill.	Flour, meat packing, breweries, lumber, machinery.
QUINCY	Ill.	Carriages, incubators, stoves, canning, flour.
RACINE	Wis.	Automobiles, carriages and wagons, cooper goods, agricultural implements, bicycles.
RICHMOND	Ind.	Flour, clothing, machinery, carriages, dairy products.
ROCKFORD	Ill.	Watches, agricultural implements, furniture.
ROCK ISLAND	Ill.	Lumber, agricultural implements, (U. S. arsenal).
SAGINAW	Mich.	Furniture, coal, beet sugar, lumber, salt, plate glass.
SANDUSKY	Ohio	Wine, tools, fishing, cooperage.
SHEBOGAN	Wis.	Furniture, boots and shoes, shipyard, lime-kilns.
SOUTH BEND	Ind.	Lumber, furniture, paper, automobiles, woollen goods, cutlery, harness.
SPRINGFIELD	Ill.	Textile works, coal, flour, car works.
SPRINGFIELD	Ohio	Machinery, steam-engines, agricultural implements.
SUPERIOR	Wis.	Cooperage, shipyards, flour, lumber, iron and steel.
TERRE HAUTE	Ind.	Car works, flour, foundries, rolling mills.
TOLEDO	Ohio	Automobiles, flour, scales, spice, distilleries, petroleum refineries, glass, iron, wooden articles.
YOUNGSTOWN	Ohio	Rubber, oil cloth, iron and steel goods.

WEST NORTH CENTRAL STATES
CHIEF CITIES AND INDUSTRIES

CITY OR TOWN	STATE	PRINCIPAL INDUSTRIES
ABERDEEN	S. D.	(Important railroad and trade centre.)
BISMARCK	N. D.	Flour
BURLINGTON	Iowa	Lumber, foundry, carriages and wagons, machine shops.
CEDAR RAPIDS	Iowa	Pork packing, flour, cereals.
CLINTON	Iowa	Railroad machine shops, iron bridge work, lumber.
COUNCIL BLUFFS	Iowa	Horses, steam-engines.
DAVENPORT	Iowa	Woollen goods, glucose, cooperage, brick and stone, carriages, cordage.
DES MOINES	Iowa	Pork packing, starch, flour, coal, glass, cotton products.
DUBUQUE	Iowa	Brewing, carriages and wagons, lumber, pork packing.
DULUTH	Minn.	Stockyards, iron and steel, flour, machine shops, blast furnaces, shipping.
FARGO	N. D.	Flour, packing, railroad cars, planing mills, machinery.
GRAND FORKE	N. D.	Live-stock, flour, lumber, steam-boilers.
HANNIBAL	Mo.	Lime, cement, cigars, flour, agricultural implements.
JEFFERSON CITY	Mo.	Bricks, flour, wagons.
KANSAS CITY	Kan.	Meat packing, stockyards, steel, flour, railroad cars.
KANSAS CITY	Mo.	Flour, meat packing, iron, furniture, railroad supplies.
LEAVENWORTH	Kan.	Flour, dye-works, woollens, shoes, iron, furniture.
LINCOLN	Neb.	Livestock, harness, oils and paints, lumber, grain.
MINNEAPOLIS	Minn.	Flour, lumber, furniture, clothing, iron and steel goods, paper, machinery.
OMAHA	Neb.	White lead works, breweries, machine and locomotive works.
OTTUMWA	Iowa	Flour, iron, pork packing, foundries, mining implements.
PIERRE	S. D.	Livestock, mining centre.
ST. JOSEPH	Mo.	Flour, men's shirts and overalls, stock-yards, meat packing.
ST. LOUIS	Mo.	Tobacco and snuff, flour, beer, hardware, boots and shoes, stoves, chemicals, drugs, horse and mule market.
ST. PAUL	Minn.	Furniture, lumber products, stoves.
SIoux CITY	Iowa	Meat packing, flour, carriages and wagons, brooms, tiles.
SIoux FALLS	S. D.	Brewing, quarrying, flour, baskets.
SOUTH OMAHA	Neb.	Meat packing, stock-yards.
TOPEKA	Kan.	Flour, lumber, railroad shops, quarrying, foundries, coal.
WATERLOO	Iowa	Automobiles, gas-engines, machine shops, foundries.
WICHITA	Kan.	Confectionery, flour, saddlery and harness, meat packing.
WINONA	Minn.	Flour, lumber, patent medicines, agricultural implements.
YANKTON	S. D.	Woollen goods, pork.

SOUTH ATLANTIC STATES
CHIEF CITIES AND INDUSTRIES

CITY OR TOWN	STATE	PRINCIPAL INDUSTRIES
ALEXANDRIA	Va.	Iron, flour, shoes.
ANNAPOLIS	Md.	Oyster packing.
ASHEVILLE	N. C.	(Health resort.)
ATLANTA	Ga.	Cotton, flour, fertilizer, car wheels, mule market.
AUGUSTA	Ga.	Cotton.
BALTIMORE	Md.	Meat packing, machine shop products, foundry, clothing, tobacco, steel, copper, iron, cotton duck.
CHARLESTON	S. C.	Machinery, carriages, flour, cotton.
CHARLESTON	W. Va.	Oil, iron, coal, salt, lumber, distilleries.
CHARLOTTE	N. C.	Cotton, resin and turpentine distilling.
COLUMBIA	S. C.	Machine and iron works, cars.
COLUMBUS	Ga.	Cotton, cottonseed-oil, iron, agricultural implements.
CUMBERLAND	Md.	Tanneries, flour, cement, iron foundries, steel works.
DANVILLE	Va.	Tobacco.
DOVER	Del.	Canned fruit, timber, baskets and crates.
DURHAM	N. C.	Tobacco.
GREENSBORO	N. C.	Cotton, tobacco, steel.
JACKSONVILLE	Fla.	Oranges, lumber.
LYNCHBURG	Va.	Flour, shoes, dyes, cotton goods, tobacco, hardware, lumber.
MACON	Ga.	Cotton, yarn, duck, cordage, twine, hosiery, cottonseed oil, cottonseed meal, fertilizer.
NEWPORT NEWS	Va.	Shipping.
NORFOLK	Va.	Cotton, oyster and fishing, shipyards, tobacco, sugar.
PALM BEACH	Fla.	(Seaside resort.)
PARKERSBURG	W. Va.	Flour, lumber, coal, farm products, oil refineries.
PENSACOLA	Fla.	(Important railroad terminus.)
PETERSBURG	Va.	Tobacco, cotton, lumber, silk, peanut oil, iron works.
PORTSMOUTH	Va.	General trade.
RALEIGH	N. C.	Resin and turpentine distilling, cotton, flour, phosphate, cottonseed-oil.
RICHMOND	Va.	Tobacco, locomotives, iron, machine shops, railway cars, lumber mills, carriage works, fertilizer works.
ROANOKE	Va.	Steel and iron.
ST. AUGUSTINE	Fla.	(Winter resort; oldest permanent settlement of Europeans in the United States.) Car and machine shops, cigars, oyster canning, fishing.
SAVANNAH	Ga.	Cotton, rice, fertilizer, ice, cottonseed-oil.
SPARTANBURG	S. C.	Cotton cloth, limestone quarries, iron mining.
TAMPA	Fla.	Tobacco. (Winter resort.)
WASHINGTON	D. C.	
WILMINGTON	Del.	Shipyards, leather, furniture, paper, cotton, powder mills.

EAST SOUTH CENTRAL STATES
CHIEF CITIES AND INDUSTRIES

CITY OR TOWN	STATE	PRINCIPAL INDUSTRIES
BERMINGHAM	Ala.	Limestone, iron, coal, rolling mill.
CHATTANOOGA	Tenn.	Coal and iron mining, cottons; steel and rail works, iron foundries, blast furnaces.
FRANKFORT	Ky.	Lumber, shoes, hrooms, hemp twine, canned vegetables.
JACKSON	Miss.	Lumber products, cottonseed-oil mills.
KNOXVILLE	Tenn.	Lumber, iron products.
LEXINGTON	Ky.	Saddlery, harness, flour, meat, stock-raising.
LOUISVILLE	Ky.	Leather, whiskey, tobacco, cement, wagons.
MEMPHIS	Tenn.	Cotton, cottonseed-oil, flour, pulp and paper mills.
MOBILE	Ala.	Cotton, lumber, grist-mill products, ship and boat building, foundry, machine shop.
MONTGOMERY	Ala.	Cotton, timber, cottonseed-oil and cake works, cordage.
NASHVILLE	Tenn.	Tobacco, copper, flour, hardware.
NATCHEZ	Miss.	(Important river port.)
NEWPORT	Ky.	Cigar boxes, furniture, carriages, iron.
PADUCAH	Ky.	Tobacco, saddles, lumber, stoneware.
SELMA	Ala.	Cotton-gins, cottonseed-oil, lumber, fertilizer, yarn.
VICKSBURG	Miss.	Cottonseed-oil, planing mills, foundries, machine shops.

WEST SOUTH CENTRAL STATES
CHIEF CITIES AND INDUSTRIES

CITY OR TOWN	STATE	PRINCIPAL INDUSTRIES
AUSTIN	Tex.	(Supply centre for extensive district.)
BATON ROUGE	La.	Cottonseed products, lumber, sugar, molasses.
DALLAS	Tex.	Saddlery, iron and metal works, cotton-gin machinery, woollen mills, cottonseed oil, cotton compresses.
FORT SMITH	Ark.	Cotton, cottonseed oil, brick, furniture.
GALVESTON	Tex.	Bagging mills, rope, rice, breweries, cotton presses.
GUTHRIE	Okla.	Flour, lumber.
HOT SPRINGS	Ark.	(Sulphur waters; health resort.)
LITTLE ROCK	Ark.	Lumber, cottonseed oil.
NEW ORLEANS	La.	Cottonseed-oil, machinery, timber products, flour, rice, tobacco, sugar.
OKLAHOMA	Okla.	Cotton, flour, iron, wood-working.
SAN ANTONIO	Tex.	Flour, cotton presses, cement, oil, broom works, cotton, wool, horse, mule, and cattle market.
SHREVEPORT	La.	Cotton.
WACO	Tex.	Clothing, cotton goods, saddlery and harness, carriages.

MOUNTAIN STATES
CHIEF CITIES AND INDUSTRIES

CITY OR TOWN	STATE	PRINCIPAL INDUSTRIES
ALBUQUERQUE	N. M.	(Important railroad and trade centre.)
BILLINGS	Mont.	Beet sugar.
BISBEE	Ariz.	Copper mining, smelting.
BOISE	Idaho	(Mining centre.)
BUTTE	Mont.	Copper, gold, and silver mining.
CARSON CITY	Nev.	Mining, lumbering, agriculture.
CHEYENNE	Wyo.	(Centre of cattle industry of northwest; important railroad centre.)
COEUR D'ALENE	Idaho	Brick making.
COLORADO SPRINGS	Colo.	(Health resort.)
CRIPPLE CREEK	Colo.	Gold mining, cyanide mills, smelting.
DENVER	Colo.	Smelting ore, canning and packing, glass, iron and steel works.
GRAND JUNCTION	Colo.	Brass and iron foundries, planing mills.
GREAT FALLS	Mont.	Smelting, flour, mining and agricultural implements.
GREELEY	Colo.	Machinery, beet sugar, agriculture.
GOLDFIELD	Nev.	Gold mining.
HELENA	Mont.	Silver and gold mining.
LEADVILLE	Colo.	Lead, silver and gold mining.
MISSOULA	Mont.	Iron, tile and brick works, lumber mills.
OCEAN	Utah	Canneries, beet sugar, woollen mills.
PHOENIX	Ariz.	Flour and olive-oil mills, creameries.
POCATELLO	Idaho	Railroad shops, breweries, concrete blocks.
PUEBLO	Colo.	Smelting, steel works, stock raising, railway car shops.
SALT LAKE CITY	Utah	Beet sugar, iron products, machinery.
SANTA FE	N. M.	Brick, filigree jewellery, pottery.
SHERIDAN	Wyo.	Wool, lumber, coal mining.
TUCSON	Ariz.	Mining, cattle, railroad shops.
VIRGINIA CITY	Nev.	Silver mining.

PACIFIC STATES
CHIEF CITIES AND INDUSTRIES

CITY OR TOWN	STATE	PRINCIPAL INDUSTRIES
ALAMEDA	Cal.	Ship building.
BAKERSFIELD	Cal.	Machine and car shops, fruit packing.
BERKELEY	Cal.	Farming, fruit.
BILLINGHAM	Wash.	Saw-mills, canneries. (Important trade centre.)
EUREKA	Cal.	Lumber and lumber products.
EVERETT	Wash.	Flour, lumber, paper, (mining centre; gold, silver, lead, and copper).
FRESNO	Cal.	Cultivation of fruit, wine, raisins, stock raising.
LONG BEACH	Cal.	(Seaside resort.)
LOS ANGELES	Cal.	Transshipment trade in oranges and citrus fruits. (Winter resort.)
NORTH YAKIMA	Wash.	Flour, wood-working, canneries.
OAKLAND	Cal.	Canneries, ship-building, iron works, flour, lumber.
OLYMPIA	Wash.	(Important port of entry.) Fishing.
PASADENA	Cal.	(Health resort.)
PORTLAND	Ore.	Lumber, flour, furniture, cordage, canned goods, woollen goods, wagons and carriages.
RIVERSIDE	Cal.	(Winter resort; heart of orange growing region.)
SACRAMENTO	Cal.	Flour, lumber, railroad cars, saddlery, harness.
SALEM	Ore.	Flour, woollens. (Centre of most important hop growing region in the world.)

PACIFIC STATES—Continued
CHIEF CITIES AND INDUSTRIES

CITY OR TOWN	STATE	PRINCIPAL INDUSTRIES
SAN DIEGO . . .	Cal.	Machine shops, planing mills, flour. (Health resort.)
SAN FRANCISCO . . .	Cal.	Sugar and molasses refineries, shipbuilding, mining machinery, canning, leather, smelting works.
SAN JOSE . . .	Cal.	Canning, packing houses, shipping, flour, lumber.
SANTA BARBARA . . .	Cal.	(Winter resort.)
SEATTLE . . .	Wash.	Shipyards, lumber and shingle mills, flour, rolling mills, foundries.
SPOKANE . . .	Wash.	Lumber, flour, furniture, brick and terra-cotta works.
STOCKTON . . .	Cal.	Flour, agricultural implements, window-glass, canneries.
TACOMA . . .	Wash.	Smelting, lumber, car-shops, flour and rolling mills, packing houses, furniture.
WALLA WALLA . . .	Wash.	Farming implements and machinery, flour and lumber mills.

COMMERCE.—More than one-half of the foreign trade of the United States is carried on with the British Empire. Out of a total of \$6,531,000,000 (imports and exports) in 1915-1916, \$2,973,000,000 represents the trade with the British Empire. United States trade is also carried on with the following countries: France, Italy, Germany, Austria-Hungary, Russia, Netherlands, Spain, Portugal, Greece, Belgium, Switzerland, Sweden, Norway, Turkey, Japan, China, Dutch East Indies; and with the following Latin American republics: Argentina, Brazil, Chile, Colombia, Mexico, Peru, Venezuela, etc.

CHIEF IMPORTS.—The leading imports into the United States in order of value are: sugar, crude rubber and gutta-percha, hides and skins, unmanufactured wool (hair of the camel, goat, etc.), unmanufactured silk, coffee; chemicals, drugs, and dyes; manufactures of vegetable fibres and textile grasses, wood and manufactures of wood, unmanufactured fibres, manufactures of copper, tin, oils, manufactures of cotton, precious stones, fruits and nuts, unmanufactured cotton, crude cocoa and cacao, seeds, silk manufactures, tobacco, paper and paper manufactures, meat and dairy products, breadstuffs, iron and steel manufactures, furs, tea, leather and leather manufactures, fish; spirits, malt liquors, and wines; manufactures of wool; copper ore, vegetables, fertilizers, earthenware and chinaware, bituminous coal, toys, glass, and glassware.

CHIEF EXPORTS.—The leading exports from the United States in order of value are: iron and steel (crude and manufactured), explosives,* breadstuffs, unmanufactured cotton, meat and dairy products, copper and manufactures of copper, carriages and other vehicles, brass and manufactures of brass, mineral oils, leather and manufactures of leather; chemicals, drugs, dyes and medicine; cotton manufactures, animals, sugar and molasses, coal, wood and manufactures of wood, tobacco (raw and manufactured), woollen manufactures, fruits and nuts, rubber manufactures, paper and manufactures of paper, oil cake and oil-cake meal, vegetable oils, manufactures of vegetable oils and textile grasses, fish, agricultural implements, naval stores, paraffin and paraffin wax, paints, etc., furs and fur skins; grease, grease scrap, etc.; soap, scientific instruments, green coffee, fertilizers, hops, household and personal effects, seeds, and musical instruments.

COMMUNICATIONS.—The railroads of the United States have increased from 23 miles in 1830, 52,922 miles in 1870, 167,191 miles in 1890, 198,964 miles in 1900, 249,992 miles in 1910, to 264,378 miles in 1915. See *Table of Railways*, p. 333.

The telegraphs are largely controlled by the Western Union Telegraph Company, which has about 240,000 miles of line, with over 1,610,000 miles of wire, and 25,142 offices. The Postal Telegraph-Cable Company operates 66,154 miles of line and 408,735 miles of wire.

The telephones operated by The American Telephone and Telegraph Company, and Associated Companies (Bell System) in the United States represent over 18½ millions miles of wire. For *Automobile Routes*, see p. 240.

DEPENDENCIES OF THE UNITED STATES

(See Map, pp. 76-77)

PHILIPPINE ISLANDS

(See Map, p. 68)

The Philippine Islands form a volcanic group in the Pacific Ocean, and are distant about 500 miles from the southeast coast of Asia. Their total land area is about 115,000 square miles; population, 7,635,000. The principal islands are Luzon (area, 40,969 square miles; population, 3,798,000), Mindanao (area, 36,292 square miles; population, 500,000), Samar (area, 5,031 square miles), Negros, Panay, Palawan, Mindoro, Leyte, Cebu, Bohol, and Masbate.

The inhabitants, apart from the Europeans and Americans, consist of aborigines, called Negritos; the Igolotes, probably of Chinese descent, who are the agriculturists of the islands; and the Tagalos, who are Malay immigrants. Until 1898 the islands formed a Spanish colony, but after the Spanish-American War they were ceded to the United States as territorial indemnity for the expenses of the war.

PRODUCTS AND INDUSTRIES.—Agriculture is the principal industry of the archipelago, and employs over one-half of the working population. The chief crops are hemp, rice, maize, sugar, tobacco, and coconuts; the exports being principally hemp, copra, sugar, and tobacco; the imports are cotton goods, rice, wheat, flour, fresh meat, boots and shoes, iron and steel manufactures, petroleum, and paper. The principal manufactures are cigars and cigarettes.

The principal ports are Manila (population, 250,000), the capital, in the island of Luzon; Cebu (population, 60,000); and Iloilo (population, 50,000).

*Exceptionally large on account of the Great War.

PORTO RICO

(See Map, p. 94)

Porto Rico is an island of the Greater Antilles group in the West Indies; area, 3,606 square miles; population, 1,118,000. The island is about 100 miles from west to east, and 40 miles from north to south at the western end, narrowing toward the eastern extremity. Porto Rico was sighted by Columbus in 1493, and was occupied by Spain from 1508 to 1898, in which year it was captured by the United States. Included in the annexation are the islands of Vieques (100 square miles), Culebra (30 square miles), Mona (20 square miles), and several islets.

Sugar is grown in the low-lying districts, and tobacco and coffee on the slopes of the hills; fruits, cotton, maize, sweet potatoes, rice, and yams are also grown. The trade is principally with the United States. San Juan (population, 49,000) the capital, and Ponce (36,000) are the chief harbours.

GUAM

(See Map, p. 76)

Guam is the largest of the Ladrone or Marianne Islands in the North Pacific Ocean, about 1,450 miles east of Manila. Its area is 210 square miles; population, 14,000. The island was discovered by the Portuguese navigator Magellan in 1521, and was occupied by Spain from 1688 to 1898. Only a small part of the island is cultivated, although the available land is fertile and the climate favourable. Coconuts, rice, sugar, coffee, and cacao are grown in small quantities. The wooded slopes of the plateau and the valleys contain valuable timber. Agaña (population, 7,000) is the capital. Apra is the port of entry.

AMERICAN SAMOA

(See Map, p. 76)

The island of Tutuila and other Samoan islands east of 171°W. longitude came into the possession of the United States in February, 1900; total area, 77 square miles; population, 7,000. Tutuila contains a magnificent harbour at Pagopago, the capital. Copra and cocoa beans are exported.

WAKE AND OTHER ISLANDS

(See Map, p. 76)

The flag of the United States was hoisted on Wake Island in 1899, and other islands in the Pacific have been annexed from time to time, including Johnston, Palmyra, and Medway.

AMERICAN VIRGIN ISLANDS

(See Map, p. 118)

The Islands of St. Croix, St. Thomas, and St. John, in the Virgin group of the Lesser Antilles, were purchased from Denmark, and taken possession of by the United States on March 31, 1917. The islands lie about 50 miles from Porto Rico; area, 142 square miles; population, 32,000. St. Croix is the largest, richest, and most populous of the three islands; it has much rich sugar land. St. Thomas is declared by naval officers to possess advantages enabling it to be converted into a second Gibraltar. St. John, the smallest of the three islands, is of economic importance, for it is from here that come the leaves of the bay tree (*Pimenta acris*), from which bay rum is prepared. Most of the bay rum is made in St. Thomas. All the islands have a striking variety of vegetation. The plantain, banana, bell apple, orange, mango, sapodilla, and lemon flourish.

CANAL ZONE

(See Map, pp. 116-117)

PANAMA CANAL.—The completion of the Panama Canal is one of the greatest engineering achievements of the world—it is doubtless the greatest of our age. The figures relating to its construction are almost beyond comprehension. The excavations alone amount to 242,000,000 cubic yards. A similar excavation would be sufficient to make a railway tunnel through the centre of the earth 14 feet in diameter and 8,000 miles in length. The concrete used (5,000,000 cubic yards) would construct a wall 8 feet thick, 12 feet high, and 266 miles long—from New York City to Washington, D. C., and 38 miles beyond. The canal itself is a monument to stupendous effort in the face of almost insurmountable difficulties; its future history has yet to be made, but it will undoubtedly greatly influence the commerce of the world, especially that of the United States, and improve her military and naval positions.

ITS HISTORY.—The first suggestion for a canal across the Isthmus of Panama was made by a Spanish engineer in 1530, and surveys were actively engaged upon by various private companies between the years 1825 and 1850. In 1876 a concession for the construction of a canal was granted to a French promotion corporation which conducted surveys during a period of two years, and reported to an international congress held at Paris in May, 1879, over which Ferdinand de Lesseps presided. This congress advised the construction of a canal at sea-level, and in 1881 the work was undertaken by the Universal Interoceanic Panama Canal Company, of which de Lesseps was nominal head. After two years of preparatory work, the first excavation was made on January 20, 1882. The amount of work to be accomplished proved to be greater than was estimated, and the conditions under which it was carried on more embarrassing. Sickness, interference of local officials, and mismanagement by the administration in Paris, resulted in the failure of the company, and a receiver was appointed in 1889. Under direction of the French courts a new company was formed to carry on the work, and after a period of surveys, excavation was resumed in 1894. This was continued until May 4, 1904, when the United States Government took possession.

Two years were spent by the United States Government in sanitation, the assembling of plant, and organization and housing of a labour force; after which operations on a large scale were begun on all parts of the canal. The labour force varied from 700 on May 4, 1904, 17,000 in 1906, 29,000 in 1907, to 50,000 in 1913. The total cost is estimated at \$375,000,000, including, in addition to the canal construction, the \$40,000,000 paid to the French canal company, \$10,000,000 paid to the Republic of Panama, and the cost of terminal facilities. For further description, see *Introduction*, p. xxii, *Map of Canal Zone*, p. 31, also under *Republic of Panama*, p. 327.

ALASKA

(See Map, p. 235)

UNTOLD ECONOMIC WEALTH.—The Territory of Alaska is a great mining and agricultural country on the same latitude as Sweden. Its forests and its minerals are sources of vast potential wealth. Yet because of inadequate railway service and high freight rates the territory remains largely unexploited.

The people of Alaska have a vision of the valleys of their interior territory dotted with towns of permanent industry where men make their homes and rear their families, towns with smelters, machine shops, stores, churches, and schools built of the timber from the surrounding hills and fed with the produce of adjacent farms. This does not mean settlement like a German landscape, but settlement such as there is now in Colorado. Between this vision and realization looms the great Alaskan mountain range and the cost per ton mile of moving freight.

LACK OF TRANSPORTATION.—In a thousand-mile half-circle along the coast stretch the mountains, in places 50 miles wide, widening out elsewhere to 200 miles. Behind them lie the gold-floored valleys that contain many other metals, and the wide-sweeping farm lands that promise a permanent development. Fairbanks on the Tanana River, is the centre of the great interior; and the freight service from tidewater to Fairbanks is the measure of Alaska's prosperity. There are two main freight routes to Fairbanks, one from the southeast and one from the southwest. Both use the great river of the north, for the Yukon is navigable from its mouth in Bering Sea, 2,000 miles across Alaska, into Canada, and to within 110 miles of salt water again at White Horse. If a miner at Fairbanks orders a boiler shipped to him by the southeastern route, it comes by steamer 1,000 miles from Puget Sound up the inland passage to Skagway. There it is trans-shipped to the narrow-gauge White Pass & Yukon Railroad, which climbs nearly 3,000 feet up White Pass, crosses the divide, and winds down on the other side 110 miles to White Horse on the upper Yukon. There the boiler is handled again, this time being loaded on a little Canadian river steamer which carries it 460 miles to Dawson. Once more there is unloading and loading; and the boiler is stored away on an American river steamer that makes the last 1,000 miles of the trip to Fairbanks.

But this route is so very expensive that most of the freight goes by the northwestern route—2,700 miles by steamer around the Aleutian Islands to St. Michael. And after this long trip, even when St. Michael is reached, Fairbanks is still 1,100 miles away upstream. Steamers whose appearance suggests the old days on the Mississippi make this last stage of the journey; but they make the trip only in the summer, for during eight or nine months of the year the mouth of the Yukon is icebound.

Such is the cheapest freight service to the metropolis of central Alaska, and the merchant who uses this service has to buy a year's supply at a time and pay interest and storage on it. The freight rate on the necessities of life, which amounts to about \$135 a year for every man, woman, and child in the interior, is what keeps down the population. Moreover, the river traffic is in the hands of a trust. There used to be two fleets of boats on the river. Now one fleet is on the beach at St. Michael. It was bought and put out of business by the rival company.

Though traffic with the States is done chiefly in summer on the river, almost all other traffic moves in winter. Passengers and a little high-class freight come into Fairbanks through the mountains to the south. From Cordova and from Valdez—the northernmost ice-free ports—travellers and such freight traffic as will bear the cost reach the interior through the valley of the Copper River. From Valdez to Chitina there is a Government-built wagon road. From Cordova to Chitina (132 miles) is the Copper River & North-western Railroad. From Chitina the Government road extends through Delta Pass to the Tanana and down to Fairbanks.

Over this road the winter stages slip along on runners. The passenger's fare is \$125, or about 35 cents a mile; and at the road houses near the summit of the pass, the rates are \$2 a meal and \$2 a bed.

Along the Yukon and the Tanana rivers the dog sledges pass to and fro all winter; and on the Seward Peninsula dogs and reindeer compete for the honour of carrying freight. They are nearly evenly matched, too; and in the yearly races from Nome to Bluff and Council and on to Candle, first the dog teams win and then the reindeer, while the sporting fraternity watch the race bulletins at the telephone terminals as the "World's Series" returns are watched in the States.

But in both summer and winter the Territory suffers from lack of transportation. Altogether there are less than 500 miles of railroad. About a third of the total mileage is narrow gauge, and one stretch of 71 miles of standard gauge is not in operation except with dog teams. There are two or three little railroads on the Seward Peninsula, but the only road of a hundred miles in length in the whole Territory is the Guggenheim Copper River road from Cordova to the Kenicott-Bonanza mine.

What is in this great interior that justifies railroads?

First and foremost there is gold.

GOLD.—In the valleys of the Alaskan range, and all through the interior as far north as the Endicott range beyond the Arctic Circle, there are men washing gold. These placer miners prospect chiefly near the beds of streams, for they need running water in the simple methods which they use to separate the gold from the gravel. Almost any stream in interior Alaska will show some gold, but with the primitive placer process that is available under Alaskan conditions, only rich soil can be worked profitably. So the prospectors roam over the country searching for rich "strikes." And when one does "strike it rich" a rush begins. Gold news flashes over the wires, and men pull up stakes in Nome, Iditarod, Fairbanks, Valdez, and in the country all the way south to Seattle and the States, and rush for the new field. They come by river and overland, by foot and by horse and by dog train.

In mining as well as in transportation, one kind is done in winter and another in summer. Working in the sands of a river bed is easier in winter when the bed is frozen and the mine shaft will not fill with water. The shafts themselves are thawed out with steam. There are hundreds and hundreds of little upright boilers in Alaska making steam to thaw out the ground. The steam is carried from the boiler into a set of pipes that are driven into the ground four or five feet apart. Shafts have been sunk three hundred feet and every foot of it had to be thawed out, for no one has ever gotten below frost in Alaska. In the summer the ice in the beds of running streams thaws, and away from the streams, where the trees and moss are cut down and cleared away, the surface will thaw a little; and for these reasons it is during the summer that most of the mining is done.

COAL.—Besides its gold, Alaska is blessed with coal, although this has long been a blessing in disguise. The forces of conservation and spoliation met on the Alaskan coal fields, and while the battle was fought the fields themselves lay idle and the railroads that were started toward them were abandoned by their builders.

On both sides of Cook Inlet are beds of lignite coal, and other beds lie between the Inlet and Mt. McKinley. Still farther north, within fifty miles of Fairbanks, lie the Nenana fields, in which there is a good grade of lignite coal occurring in numerous beds from five to twenty feet thick. The beds are tilted but otherwise are not badly disturbed, and some time undoubtedly they will be worked, not for export, but for local use, to generate electricity and heat. The Nenana fields could supply electric power for the railroad that opened them, light for Fairbanks and other settlements, and power for mines in the neighbouring region. It is even possible that the river steamers that now go empty toward the sea might take Nenana coal to Ruby and St. Michael. Nome and St.

Michael now get fuel from a lignite mine on the southern shore of Cook Inlet.

COPPER.—Copper already has its railroad. The one line of any consequence that is still in operation is the Guggenheims' Copper River road from Cordova to the Kennicott-Bonanza mine, one of the most-profitable mines in the world. Its traffic alone practically supports these 195 miles of line. There are many other rich copper lodes in different parts of Alaska, not in the hands of men able to finance their own railroads, that need transportation before they can be worked, just as there are many extensive low-grade gold ore deposits in Alaska that will furnish freight and labour and yield rich returns as soon as lower freight rates make such development possible.

DEVELOPMENT WAITS FOR THE RAILROADS.—It is not south-eastern coastal Alaska but central Alaska—the Tanana, the Susitna, and the Kuskokwim valleys—that is looked upon to yield the produce and to feed the cattle to supply the needs of the people. Fairbanks is in about the same latitude as Christiania, and the agricultural valleys of Norway and Sweden are as far north as the Alaskan valleys. The climate of inland Alaska, behind Mt. McKinley and the glaciers, is similar to the climate of Alberta, Saskatchewan, and Manitoba, which have recently made such strides in agriculture. Moreover, there has been enough farming in the interior to show that it is practicable. In the timbered country, after the trees and moss are cleared away, the first summer's sun thaws the surface and in the second summer the ground is ready for crops; and there are wide sweeps of grass land that do not have to be cleared at all.

The valley of the Tanana River is a valley of rich soil and in many places has a heavy growth of grasses. Where Fairbanks makes a market there are farms that raise potatoes, oats, rye, barley, hay, and vegetables; and though it is necessary to winter-feed stock, beef cattle and milk cattle can fare well in this region. . . . Agricultural development in Alaska to-day is more promising than agriculture was in many of our now-flourishing Western States fifty or sixty years ago. Into the few valleys where the local market will support farming, the homesteader has gone. Elsewhere he, like almost everybody and everything else in Alaska, awaits the coming of the railroad.

The one great exception to this statement is the fish industry. It belongs on the coast. Every summer it is in evidence from St. Michael to Sitka. Ships and fishermen, canneries and cannery workers, fill this coast with industry. As fall comes the canneries are shut and the ships carry back to the States the cannery workers and every trace of the industry except the deserted buildings. Some day perhaps this may change and the salmon-canning business may make homes in Alaska, but now its chief effect upon the other industries of the Territory is to provide better steamer service than they otherwise would have and to supply a cheap food not only to Alaska but to the whole United States.

But excepting only the fisheries, Alaska waits for railroads.¹

ALASKA RAILROADS.—The first arterial route of a Government railroad in Alaska, reaching from the coast to navigable waters of the interior, was designated by President Wilson in April 1915.

The route adopted, known as the Susitna route, extends from Seward, on Resurrection Bay, to Fairbanks, on the Tanana River, a distance of 471 miles. This route includes the existing Alaska Northern Railway which runs from Seward through the Kenai Peninsula for a distance of seventy-one miles to Turnagain Arm, and it is to be bought from its present owners by the Government for \$1,150,000. The contract for the purchase of this road was signed by Secretary Lane of the Interior Department.

From Turnagain Arm the route is to be extended through the Susitna Valley and across Broad Pass to the Tanana River, and from there on to Fairbanks. It is to be a standard-gauge road. A side line is to run from Matanuska Junction into the Matanuska coal field, a distance of thirty-

eight miles. The road is to be built with its present base at Ship Creek, on Cook Inlet. The grade from the Matanuska field to Ship Creek is four-tenths of 1 per cent.

The Alaska Northern is to be put into operative condition and will be used as a base for extending the line along Turnagain Arm. Under the contract approved by the President, the road is taken over free from all debt or obligation of any kind.

SYNOPSIS OF ALASKA

(See Map, p. 235)

The Territory of Alaska was purchased by the United States from Russia in 1867 for the sum of \$7,200,000. The transfer was formally made at Sitka on October 18, 1867. Alaska was organized as a territory on July 27, 1868. It has an area of 590,884 square miles, and a population of 64,000.

PHYSICAL FEATURES. There are four well-defined divisions, corresponding to those of the Western States. The *Pacific Mountain System* includes the coastal range of the Alaskan Peninsula (known as the "Panhandle" on account of its shape), with summit levels of from 5,000–6,000 feet; the St. Elias range, with many peaks above 14,000 feet; the Alaskan range, which includes many active volcanoes, and Mt. McKinley (20,300 feet), the highest point in the territory. The *Rocky Mountain System* crosses the Yukon boundary and extends over the northeastern portion of Alaska, with peaks of 6,000 feet; the *Central Plateau Region* which occupies most of the interior of the Territory, with an elevation of from 3,000–5,000 feet; and the *Arctic Slope Region*, with a maximum altitude of 2,000–3,000 feet.

YUKON RIVER. The principal river of Alaska is the Yukon, which has a total length of 2,200 miles, and with its tributaries a total navigable length (May to September) of over 3,000 miles, of which three fourths are in Alaska. Its principal territories are the Tanana and the Koyukuk.

CLIMATE. The coastal regions have a fairly equable temperature and a heavy rainfall, but the winters of the interior are very severe, and the summers uncertain.

PRODUCTS AND INDUSTRIES.—(1) *Agriculture.* The soil of Alaska is rich and capable of agriculture development; the principal impediment to this is the shortness of the summer. In the coastal region and various regions of the Yukon Valley, hardy vegetables in great variety can be produced successfully. There is little doubt that over the greater part of southeastern Alaska such grains as *buckwheat*, *barley*, and *oats*, and possibly also *wheat* and *rye*, could be cultivated with reasonable prospects of success. It is estimated that one sixth of the territory is suitable for pasture and tillage. The live stock is being replenished, and reindeer have been introduced from Siberia and now number more than 50,000. The Agricultural Department has established successful experimental stations at various points within the Territory, demonstrating that vegetables, grains, grasses and live stock are adapted to the climate. The Government railroad will make available for settlement the many thousands of acres of agricultural lands.

(2) *Forests.* The forest area is close on 27,000,000 acres, and includes many varieties of cedar, fir, spruce, and hemlock. At present there is little development of the timber resources of the Territory.

(3) *Fisheries.* Cod, herring, salmon, and seal fishing are important industries. *Cod* can be taken with comparatively little hardship. *Herrings* furnish oil and guano, and the young fish are packed as "sardines" at Juneau. The salmon industry dates from 1878. The output since 1900 has been more than half the total salmon product of the United States, and it is more than ten times the product of all other fish. On the Karluk River, Kodiak Island, is the largest salmon fishery in the world. These salmon fisheries have been conducted in the past in a recklessly wasteful manner.

The fur seal industry has been somewhat better protected, but not sufficiently so to prevent these animals from being threatened with early extermination. The walrus, hunted for its ivory tusks, and the sea otter, the rarest and most valuable of Alaskan fur animals, are rapidly becoming extinct. The whale fishery also has fallen off; the whales are now sought for the baleen alone.

(4) *Minerals.* Alaska is rich in minerals, and is rapidly becoming one of the greatest metal and mineral producing countries in the world. *Gold*, *copper*, and *tin* are extensively produced. *Gold* was first found in 1861, but as yet no veins of the richness of the Klondyke deposits have been discovered. *Tin* was discovered in the Tanana Valley in 1912. This is one of the metals not produced in the United States. We are now importing \$40,000,000 to \$50,000,000 worth of tin annually; and Alaska is undoubtedly destined to produce the greater part, if not all, of the tin that the United States requires. *Oil* has been found in many parts of the public domain. The resources of the *coal fields* of the Nenana districts are estimated at more than 150 billion tons. The Bering River, the Matanuska Valley, and the Nenana fields, containing deposits of high-grade character, were subdivided into townships by Government surveyors during 1915 and 1916. The building of the Government railway will facilitate the development of the coal fields.

JUNEAU is situated on the Gastineau Channel in the southeast, and became the capital in 1906.

EXPORTS.—Since the commencement of tabulated records of Alaska's exports the output has been:—

	SINCE 1867*	FISCAL YEAR 1915-16
Gold	\$260,488,175	\$16,195,635
Copper	46,281,148	26,488,288
Silver	3,011,153	759,962
Other Minerals	2,751,638	449,518
Fisheries and Furs	299,581,890	20,202,400
Other Merchandise	1,705,820	479,688

*By far the greater portion since 1899, or only fifteen years.

¹Owen Wilson in *The World's Work*.

INDEX

CITIES AND TOWNS OF THE UNITED STATES

LATEST CENSUS

In this compilation the official population figures, as determined by the Thirteenth (1910) Census of the United States, are given for all cities, villages and boroughs separately enumerated by the government officials; of the places not separately enumerated by the Census Bureau, and for which there are no government figures obtainable, recent estimates, supplied by local officials and by other reliable authorities, are given. Several states made enumerations in 1915 and where these new figures are given, notations are made following name of individual state. Capitals of states are printed in capital letters, and places having one hundred or more inhabitants are named. The index references enclosed in parentheses, indicate location of city or village on the accompanying maps.

Some comparatively unimportant places have been omitted from the maps to avoid crowding and consequent indistinctness in the engraving; such omitted towns will be found in the list, and their situation on the map, in each case, may readily be determined by means of the index-reference letters and numbers.

ALABAMA

<p>Abanda, (F5)..... 100 Abbeville, (G8)..... 1,141 Abbott, (C8)..... 200 Abercrombie, (C6)..... 350 Abernath, (C5)..... 300 Acton, (D5)..... 1,500 Ada, (E7)..... 100 Adamsville, (D4)..... 649 Addison, (C3)..... 100 Adger, (C5)..... 1,200 Akron, (B6)..... 100 Alabama City, (F4) 4,313 Alameda, (B8)..... 200 Alamuchee, (A7)..... 100 Alberta, (C7)..... 150 Albertville, (E3)..... 1,544 Aldrich, (D5)..... 450 Alexander City, (F6)..... 1,710 Alexis, (F3)..... 150 Aliceville, (A5)..... 640 Allenton, (C8)..... 200 Almond, (F5)..... 100 Alpine, (E5)..... 100 Alton, (D4)..... 200 Altoona, (E3)..... 1,071 America, (C4)..... 100 Andalusia, (E9)..... 2,480 Anderson, (C2)..... 230 Anniston, (F4)..... 12,794 Arab, (E3)..... 150 Arion, (F8)..... 431 Arkadelphia, (C4)..... 210 Arlington, (B7)..... 100 Ashford, (G9)..... 479 Ashland, (F5)..... 1,062 Ashville, (E4)..... 278 Athens, (C2)..... 1,715 Atmore, (B9)..... 1,060 Attalla, (C3)..... 2,513 Aubrey, (E5)..... 300 Auburn, (G6)..... 1,408 Austinville, (D2)..... 671 Autaugaville, (D7)..... 313 Avondale, (D4)..... 4,500 Baltzell, (B6)..... 100 Bangor, (D4)..... 200 Banks, (F8)..... 307 Bankston, (B4)..... 100 Barlow Bend, (B9)..... 200 Barton, (B2)..... 100 Batesville, (G7)..... 143 Battle, (F2)..... 100 Bay Minette, (B10) 749 Bear Creek, (B3)..... 600 Beatrice, (C8)..... 345 Belcher, (G8)..... 200 Belgreen, (C3)..... 300 Belknap, (C7)..... 100 Bellamy, (A7)..... 500 Belle Ellen, (C5)..... 400 Belle Mina, (D2)..... 100 Belle Sumter, (C5)..... 100 Belleville, (C9)..... 170 Bells Landing, (C8) 100 Bellwood, (F9)..... 201 Benton, (D7)..... 600 Berry, (B4)..... 372 Bessemer, (C5)..... 10,864 Bethany, (A5)..... 100 Beulah, (G6)..... 150 Bexar, (A3)..... 300 Billingsley, (D6)..... 256 Birmingham, (D4)..... 132,685 Bissell, (G4)..... 150 Black, (F9)..... 485 Blackwell, (C4)..... 200 Bladon Springs, (A8) 430 Blocton, (C5)..... 2,800 Blossburg, (D4)..... 2,000 Blount Springs, (D4) 300 Blountsville, (D3)..... 287 Blue Springs, (G8)..... 117 Bluffton, (G3)..... 100 Boaz, (E3)..... 1,010 Boligee, (B6)..... 200 Bolling, (D8)..... 350 Bon Air, (E5)..... 250 Bon Secour, (B11)..... 350 Bradleyton, (E8)..... 150 Braehed, (C5)..... 250 Brantley, (E8)..... 803 Brent, (C6)..... 650 Brewton, (C9)..... 2,185 Bridgeport, (F2)..... 2,125 Bridgeton, (D5)..... 100 Brightfield, (D5)..... 2,100 Brighton, (C5)..... 1,502 Brilliant, (B3)..... 700 Brompton, (E4)..... 250 Brooklyn, (D9)..... 350 Brooks, (D9)..... 100 Brookside, (D4)..... 623 Brooksville, (E3)..... 100 Brookwood, (C5)..... 1,550 Browns, (C7)..... 200 Brownsboro, (E2)..... 100 Brundidge, (F8)..... 815 Buena Vista, (C8)..... 200 Burleson, (B3)..... 100 Burnsville, (D7)..... 200 Butler, (A7)..... 250</p>	<p>Cahaba, (C7)..... 200 Calebee, (F7)..... 250 Caledonia, (C8)..... 200 Calera, (D5)..... 754 Calumet, (C4)..... 350 Calvert, (A9)..... 150 Camden, (C7)..... 648 Campbell, (B8)..... 100 Camp Hill, (F6)..... 896 Capitol Heights, (E7) 403 Carbon Hill, (B4)..... 1,627 Cardiff, (D4)..... 426 Carlisle, (E3)..... 100 Carlwille, (C7)..... 200 Carney, (B10)..... 150 Carrollton, (A5)..... 444 Castleberry, (D9)..... 225 Catherine, (B7)..... 200 Cecil, (E7)..... 100 Cedar Bluff, (F3)..... 230 Cedarvale, (C5)..... 100 Cedarville, (B6)..... 250 Center, (F3)..... 256 Centerville, (C6)..... 730 Central, (E6)..... 100 Central Mills, (B7) 200 Ceylon, (C9)..... 100 Chambers, (E7)..... 250 Chatom, (A9)..... 100 Chelsea, (D5)..... 100 Cheputtepec, (E4)..... 200 Cherokee, (B2)..... 269 Chesterfield, (F3)..... 100 Childersburg, (E5) 449 Chinagrove, (F7)..... 150 Choccolocco, (F4)..... 250 Chunchula, (A10)..... 100 Citronelle, (A9)..... 935 Claiborne, (B8)..... 100 Clanton, (D6)..... 1,123 Clayton, (G8)..... 1,130 Cleveland, (D3)..... 150 Clinton, (B6)..... 100 Clio, (F8)..... 580 Cloverdale, (B2)..... 150 Coalburg, (D4)..... 250 Coal City, (E4)..... 685 Coal Creek, (C4)..... 300 Coaldale, (D4)..... 500 Coaling, (C5)..... 250 Coalton, (D5)..... 100 Coal Valley, (C4)..... 400 Coatoapa, (A6)..... 100 Coats Bend, (E3)..... 100 Cobb City, (F4)..... 100 Cochran, (A5)..... 200 Coden, (A11)..... 250 Coffee Springs, (F9) 503 Coffeeville, (A8)..... 100 Collbran, (F3)..... 100 Collinsville, (F3)..... 673 Collirene, (D7)..... 150 Columbia, (G9)..... 1,122 Columbiana, (D5) 1,079 Comer, (G7)..... 200 Cooper, (D6)..... 100 Coosada Station, (E6) 500 Copeland, (A8)..... 300 Cordova, (C4)..... 1,747 Corona, (C4)..... 1,500 Cortelyou, (B9)..... 200 Cotondale, (C5)..... 520 Cottonwood, (G9) 500 Courtland, (C2)..... 478 Covington, (D5)..... 500 Cowarts, (G9)..... 150 Cragford, (F5)..... 150 Crawford, (G7)..... 200 Crews Depot, (A4) 150 Crichton, (A10)..... 100 Cropwell, (E4)..... 110 Crossville, (F3)..... 250 Cuba, (A7)..... 650 Cullman, (D3)..... 2,130 Curls Station, (A7) 200 Curtiston, (E3)..... 200 Cusseta, (G6)..... 150 Dadeville, (F6)..... 1,193 Daleva, (F9)..... 200 Daleville, (F9)..... 500 Damascus, (E9)..... 100 Danville, (C3)..... 220 Daphne, (B10)..... 700 Davis Creek, (B4)..... 100 Daviston, (F5)..... 127 Dawson, (F3)..... 130 Dayton, (B7)..... 382 De Armanville, (F4) 130 Deatsville, (E6)..... 194 Decatur, (C2)..... 4,228 Deer Creek, (C4)..... 279 Deer Park, (A9)..... 120 Delmar, (B3)..... 100 Demopolis, (B7)..... 2,417 Deposit, (E2)..... 100 Detroit, (A3)..... 160 Dixons Mills, (B7) 200 Dolives, (B10)..... 150 Dolomite, (C5)..... 1,000 Dora, (C4)..... 916 Doran, (B9)..... 150 Dothan, (G9)..... 7,016 Double Springs, (C3) 200</p>	<p>Douglas, (F9)..... 100 Downs, (F7)..... 100 Dozier, (E8)..... 288 Drifton, (C4)..... 100 Dudleyville, (F6)..... 100 Duke, (F4)..... 150 Duncanville, (C5) 250 Dunham, (D8)..... 300 Duonavant, (E5)..... 100 Eastaboga, (E4)..... 500 E. Birmingham, (D4) 500 East Lake, (D4)..... 4,100 East Tallasse, (F6) 2,000 East Thomas, (D4) 1,500 Echola, (B5)..... 200 Eclectic, (F6)..... 315 Eden, (E4)..... 165 Edwardsville, (F4) 393 Effie, (D8)..... 200 Effort, (E8)..... 100 Elamville, (F8)..... 200 Elba, (E9)..... 1,079 Eldridge, (B4)..... 120 Eliza, (F2)..... 150 Elk, (C3)..... 100 Elkmont, (D2)..... 188 Elmore, (E6)..... 300 Elvira, (D5)..... 250 Elyton, (D4)..... 1,000 Emauhee, (E5)..... 300 Emelle, (A6)..... 300 Enon, (F7)..... 300 Ensey, (D4)..... 8,200 Enterprise, (F9)..... 2,322 Epes, (A6)..... 374 Escalapa, (E6)..... 200 Escatawpa, (A9)..... 130 Estaboga, (E4)..... 94 Eufula, (G8)..... 4,259 Euphonia, (F9)..... 321 Euphonia, (E7)..... 100 Eureka, (E4)..... 100 Eutaw, (B6)..... 1,001 Evergreen, (D9)..... 1,582 Exsho, (A9)..... 100 Ezra, (C5)..... 250 Fackler, (F2)..... 150 Fairfield, (D4)..... 600 Fairhope, (B10)..... 590 Fairview, (D2)..... 237 Falco, (D9)..... 200 Falkville, (D3)..... 335 Farmersville, (D7) 100 Fatama, (C8)..... 100 Fausdsale, (B7)..... 352 Fayette, (B4)..... 636 Fayetteville, (E5)..... 190 Fernbank, (A4)..... 180 Finchburg, (B8)..... 200 Fisk, (D2)..... 300 Fitzpatrick, (F7)..... 398 Fivepoints, (G5)..... 200 Flat Creek, (C4)..... 600 Flatwood, (B7)..... 100 Flint, (C2)..... 197 Flomaton, (C9)..... 539 Florida, (E9)..... 2,439 Florence, (B2)..... 6,689 Flossy, (C2)..... 180 Foley, (B11)..... 200 Forest Home, (D8) 300 Forkland, (B6)..... 100 Forney, (G3)..... 120 Fort Davis, (F7)..... 200 Fort Deposit, (D8) 893 Fort Payne, (F3)..... 1,317 Jackson, (B9)..... 1,379 Jacksons Gap, (F6) 260 Jacksonville, (F4)..... 2,231 James, (F7)..... 400 Jasper, (C4)..... 2,509 Jefferson, (B7)..... 210 Jenison, (D6)..... 413 Jennifer, (F4)..... 104 Jernigan, (G7)..... 500 Johns, (C5)..... 500 Jones, (D6)..... 532 Jonesboro, (D5)..... 1,979 Jones Chapel, (C3) 150 Jones Mills, (C9)..... 442 Joppa, (D3)..... 167 Kaolin, (F2)..... 100 Keego, (C9)..... 100 Keener, (F3)..... 100 Kennedy, (B4)..... 261 Keystone, (D5)..... 100 Kimberly, (C5)..... 800 Kingdon, (C6)..... 100 Kingston, (D4)..... 300 Kinsey, (G9)..... 340 Kinston, (E9)..... 150 Kirkwood, (C4)..... 130 Knoxville, (B6)..... 100 Kynulva, (E5)..... 100 Ladiga, (F4)..... 150 Lafayette, (G6)..... 1,632 Lagarde, (F2)..... 200 Lahusage, (F4)..... 250 Lamar, (G5)..... 150 Lambert, (A9)..... 130 Lamison, (B7)..... 250 Graham, (G5)..... 200</p>	<p>Grand Bay, (A10)..... 200 Granger, (G9)..... 200 Grant, (E2)..... 100 Grasselli, (C5)..... 100 Gravelly Sprgs, (B2) 100 Graysville, (C4)..... 428 Greeley, (C5)..... 300 Green Pond, (C5)..... 250 Greensboro, (B6)..... 2,048 Green Springs, (D4) 100 Greenville, (D8)..... 3,377 Grimes, (G9)..... 100 Grove Hill, (B8)..... 300 Guerryton, (F7)..... 100 Guin, (B4)..... 356 Guntersville, (E3) 1,145 Gurley, (E2)..... 750 Gurnee, (D5)..... 200 Hackleburg, (B3)..... 286 Hackneyville, (F5) 150 Haleburg, (G9)..... 100 Haleyville, (B3)..... 1,111 Hamburg, (C6)..... 150 Hamilton, (B3)..... 422 Hammac, (C9)..... 100 Hanceville, (D3)..... 464 Hannay, (F2)..... 100 Hannon, (F7)..... 100 Hardaway, (F7)..... 300 Hargrove, (D5)..... 350 Harspersville, (E5) 190 Hartford, (F9)..... 1,159 Hartsells, (D3)..... 1,374 Hathechubbee, (G7) 250 Havana, (B6)..... 140 Hawridge, (E9)..... 120 Haygood, (E9)..... 130 Hayneville, (D7)..... 400 Headland, (G9)..... 1,090 Hefflo, (F4)..... 839 Helena, (D5)..... 400 Henderson, (E8)..... 100 Henryellen, (D4)..... 460 Herbert, (D9)..... 300 Hickoryflat, (G5)..... 150 Higdun, (F2)..... 100 Highland Home, (E8) 100 Highnote, (F9)..... 300 Hillman, (D5)..... 100 Hillsboro, (C2)..... 202 Hixon, (C8)..... 150 Hobson City, (F4) 344 Hokes Bluff, (F4)..... 300 Hollis, (E5)..... 688 Holly Pond, (D3)..... 180 Hollywood, (E2)..... 234 Holt, (C5)..... 500 Hopewell, (G4)..... 200 Horton, (E3)..... 130 Houston, (C3)..... 200 Howles Crossroads, (F3)..... 100 Huffman, (D4)..... 100 Hull, (B5)..... 300 Hunter, (B2)..... 100 Huntsville, (D7)..... 7,611 Hurtsboro, (G7)..... 764 Hymer, (F7)..... 200 Inverness, (F2)..... 200 Ireland Hill, (B3)..... 230 Ironaton, (F5)..... 982 Irondale, (D4)..... 572 Isbell, (B3)..... 100 Isom, (E3)..... 200 Jackson, (B9)..... 1,379 Jacksons Gap, (F6) 260 Jacksonville, (F4)..... 2,231 James, (F7)..... 400 Jasper, (C4)..... 2,509 Jefferson, (B7)..... 210 Jenison, (D6)..... 413 Jennifer, (F4)..... 104 Jernigan, (G7)..... 500 Johns, (C5)..... 500 Jones, (D6)..... 532 Jonesboro, (D5)..... 1,979 Jones Chapel, (C3) 150 Jones Mills, (C9)..... 442 Joppa, (D3)..... 167 Kaolin, (F2)..... 100 Keego, (C9)..... 100 Keener, (F3)..... 100 Kennedy, (B4)..... 261 Keystone, (D5)..... 100 Kimberly, (C5)..... 800 Kingdon, (C6)..... 100 Kingston, (D4)..... 300 Kinsey, (G9)..... 340 Kinston, (E9)..... 150 Kirkwood, (C4)..... 130 Knoxville, (B6)..... 100 Kynulva, (E5)..... 100 Ladiga, (F4)..... 150 Lafayette, (G6)..... 1,632 Lagarde, (F2)..... 200 Lahusage, (F4)..... 250 Lamar, (G5)..... 150 Lambert, (A9)..... 130 Lamison, (B7)..... 250 Landersville, (C3)..... 200</p>	<p>Lanett, (G6)..... 3,820 Langdale, (G6)..... 500 Langston, (E2)..... 314 Lanier, (E5)..... 200 Lapine, (E8)..... 350 LaPlace, (F7)..... 100 Larkin, (E2)..... 100 Larkinsville, (E2)..... 220 Latham, (B9)..... 100 Lawley, (C6)..... 100 Lawrenceville, (G9) 200 Leabon, (F3)..... 100 Leeds, (D4)..... 810 Leesburg, (F3)..... 100 Leedsale, (D3)..... 150 Lehigh, (D4)..... 300 Leighton, (B2)..... 540 Leroy, (B8)..... 150 Lethathee, (D7)..... 300 Liberty, (D3)..... 100 Lilita, (A7)..... 200 Lily, (D6)..... 300 Lim Rock, (E2)..... 200 Liocolo, (E4)..... 250 Linden, (B7)..... 600 Lineville, (F5)..... 1,053 Linwood, (F8)..... 100 Littleton, (D4)..... 100 Livingston, (A6)..... 877 Loachapoka, (F6)..... 480 Lockhart, (E9)..... 600 Longview, (D5)..... 250 Louisville, (F8)..... 983 Lovick, (D4)..... 100 Low Peach Tree, (B8)..... 700 Lowndesboro, (D7) 500 Luthers Store, (B7) 250 Luverne, (E8)..... 1,384 McCullum, (C4)..... 200 McDowell, (B7)..... 100 McCall, (E4)..... 1,000 McGhee, (F3)..... 250 McKelvey, (B7)..... 200 McLendon, (G7)..... 100 McNeil, (C9)..... 150 McShan, (A5)..... 100 McWilliams, (C8)..... 184 Maben, (C4)..... 200 Madison, (D2)..... 426 Madrid, (G9)..... 100 Magazine, (A10)..... 250 Magnolia, (B7)..... 500 Magnolia Springs, (B11)..... 200 Malone, (F5)..... 150 Malvern, (F9)..... 100 Manchester, (C4)..... 500 Manistee, (B9)..... 150 Manningham, (D8) 500 Maplesville, (D6)..... 500 Marble, (D9)..... 100 Marbury, (D6)..... 200 Margaret, (E4)..... 200 Marion, (C6)..... 1,834 Marjono, (C7)..... 200 Maros, (C9)..... 150 Martling, (E3)..... 160 Marvel, (C5)..... 400 Marvyn, (G7)..... 300 Mathews, (E7)..... 200 Maylene, (D5)..... 350 Maysville, (E2)..... 220 Mcbama, (B2)..... 300 Meltonville, (E3) 100 Memphis, (A5)..... 200 Meridianville, (D2) 220 Middleton, (F4)..... 530 Midland City, (F9) 259 Midway, (F7)..... 464 Millport, (A4)..... 529 Milltown, (F5)..... 100 Minter, (C7)..... 300 Mitchell Sta., (F7)..... 350 Mobile, (B10)..... 51,521 Monroeville, (C8)..... 616 Montcalm, (B4)..... 150 Montevallo, (D5)..... 923 MONTGOMERY, (E7)..... 38,136 Mooney, (F2)..... 100 Moores Bridge, (B5) 300 Mooresville, (D2)..... 137 Moro, (C6)..... 100 Morris, (D4)..... 299 Morrisville, (E4)..... 130 Morrowville, (C6) 140 Motley, (F5)..... 100 Moulton, (C3)..... 354 Moundville, (B6)..... 253 Mountain Creek, (G6)..... 300 Mount Andrew, (G8) 300 Mount Nebron, (A6) 150 Prairie, (C7)..... 250 Mount Hope, (C3) 300 Mount Meigs, (E7) 150 Mt. Pleasant, (B9)..... 100 Mount Sterling, (A7) 100 Mount Vernon, (A9) 800 Mount Willing, (D7) 300 Mulga, (C4)..... 400 Munford, (F4)..... 400</p>	<p>Murrycross, (F3)..... 100 Muscadine, (G4)..... 130 Myrtle, (E7)..... 100 Nanafalia, (B7)..... 600 Natural Bridge, (B3) 200 Nauvoo, (C4)..... 392 Nellie, (C8)..... 100 Nettleboro, (B8)..... 110 Newala, (D5)..... 150 Newber, (B6)..... 515 New Brockton, (F9) 328 Newburg, (B3)..... 250 New Castle, (D4)..... 100 New Decatur, (C2) 6,118 New Hope, (E2)..... 301 New Market, (E2)..... 300 Newriver, (B4)..... 100 Newsite, (F5)..... 300 Newton, (F9)..... 524 Newville, (G9)..... 522 Nokomis, (B9)..... 200 Normal, (D2)..... 100 North, (E3)..... 100 North Birmingham, (D4)..... 5,500 Northport, (B5)..... 500 Notasulga, (F6)..... 512 Nottingham, (E5)..... 100 Oakbown, (G6)..... 120 Oakchika, (A7)..... 100 Oak Grove, (A10)..... 100 Oakhill, (C8)..... 300 Oakland, (C4)..... 1,065 Octagon, (B7)..... 100 Odenville, (E4)..... 100 Ohatchee, (E4)..... 100 Old Spring Hill, (B7) 100 Olesner, (D3)..... 100 Olney, (A5)..... 150 Oneonta, (D4)..... 609 Ono, (D4)..... 100 Opelika, (G6)..... 4,734 Opp, (E9)..... 863 Orestes, (D8)..... 150 Orion, (F8)..... 150 Orville, (C7)..... 255 Osceola, (F3)..... 200 Owassa, (D9)..... 100 Owens Crossroads, (E2)..... 100 Oxanna, (F4)..... 100 Oxford, (F4)..... 1,090 Oxmoor, (D5)..... 500 Ozark, (F9)..... 2,229 Paint Rock, (E2)..... 534 Palmetto Beach, (B11)..... 330 Paos, (C4)..... 200 Panola, (A6)..... 190 Pansey, (G9)..... 106 Panstone, (G6)..... 150 Parcoal, (B3)..... 100 Patsburg, (E8)..... 150 Patton, (C4)..... 300 Peaces Mills, (B3) 100 Peekshill, (F4)..... 100 Pelham, (D5)..... 100 Pell City, (E4)..... 530 Pennington, (A7)..... 170 Penton, (G6)..... 150 Pera, (E9)..... 150 Perdue Hill, (C8)..... 350 Perote, (F8)..... 240 Perryville, (C6)..... 100 Petrey, (E8)..... 200 Phoenix, (G7)..... 4,555 Pickensville, (A5)..... 214 Piedmont, (F4)..... 2,226 Pierce, (A10)..... 100 Pigeon Creek, (D8) 100 Pike Road, (E7)..... 100 Pinckard, (F9)..... 541 Pine Apple, (D8)..... 627 Pinegrove, (F7)..... 200 Pinehill, (B8)..... 470 Pine Level, (E7)..... 250 Pinkey City, (D4)..... 358 Piper, (C5)..... 500 Pivterview, (G7)..... 150 Plantersville, (D6) 150 Plateau, (A10)..... 200 Pleasant Gap, (F4) 100 Pleasant Hill, (D7) 500 Pleasant Ridge, (A6) 350 Pletcher, (D6)..... 200 Poarch, (B9)..... 130 Pochontas, (B4)..... 300 Point Clear, (B11) 430 Poley, (E9)..... 369 Pollard, (C9)..... 599 Porter, (C4)..... 200 Portersville, (F3)..... 200 Powderly, (D5)..... 300 Powers, (B6)..... 250 Prairie, (C7)..... 180 Prairieville, (B7)..... 100 Pratt City, (D4)..... 4,000 Prattville, (D7)..... 2,222 Prentice, (B7)..... 200 Pughmataha, (A7)..... 100 Pyriton, (F5)..... 200 Quinton, (C4)..... 100 Radford, (C6)..... 150</p>	<p>Ragland, (E4)..... 483 Ramer, (E7)..... 350 Randolph, (D6)..... 350 Red Bay, (A3)..... 472 Redhill, (E3)..... 100 Redlevel, (D9)..... 317 Red Star, (C4)..... 150 Reform, (B5)..... 550 Rehoboth, (C7)..... 130 Renfro, (E5)..... 85 Republic, (C9)..... 331 Republican, (D4)..... 350 Richmond, (C7)..... 200 Ridkey, (C5)..... 100 Riverdale, (D6)..... 500 Riley, (C8)..... 200 River Falls, (D9)..... 760 River Ridge, (C8)..... 300 Riverside, (E4)..... 277 River View, (G6)..... 200 Roanoke, (G5)..... 2,034 Robertsdale, (B10) 300 Robinsons Springs, (E6)..... 110 Rohjohn, (A7)..... 150 Rockford, (E6)..... 1,600 Rock Mills, (G5)..... 349 Rock Run, (C3)..... 500 Rockwest, (C8)..... 150 Rockwood, (B3)..... 240 Rogersville, (C2)..... 650 Rosehill, (E9)..... 100 Rosemary, (B6)..... 100 Round Mountain, (F3)..... 210 Rue, (B5)..... 200 Russell, (A9)..... 200 Russellville, (B2)..... 2,046 Rutan, (A9)..... 150 Rutledge, (E8)..... 230 Saco, (F8)..... 200 Safford, (C7)..... 150 Saginaw, (D5)..... 200 Saint Clair, (D7)..... 100 St. Clair Sprgs, (E4) 150 Saint Elmo, (A10) 100 Saint Florian, (B2) 450 Saint Stephens, (A8) 180 Salem, (G6)..... 150 Samson, (E9)..... 1,350 Sanders, (G9)..... 100 Sandusky, (D4)..... 491 Sandy, (C6)..... 100 Sandridge, (D7)..... 742 Sanford, (E9)..... 700 Saraland, (A10)..... 200 Sawyerville, (B6)..... 100 Sayre, (D4)..... 600 Sayreton, (D4)..... 400 Schuster, (C8)..... 100 Scotia</p>
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ARIZONA

Table listing Arizona locations and their corresponding page numbers. Includes entries like Agua Caliente (B5) 100, Alhambra (C5) 200, and Casa Blanca (D5) 1,200.

ARKANSAS

Table listing Arkansas locations and their corresponding page numbers. Includes entries like Abbott (B4) 300, Abbeville (B4) 150, and Zebulum (C6) 100.

CALIFORNIA

Table listing California cities and their populations. Columns include city names and population counts. The list is organized alphabetically by city name. Examples include Acampo (200), Acton (150), Adin (50), and Agner (75).

COLORADO

Table listing Colorado locations and their populations. Includes entries like Aguilar (K9), Alamosa (H9), Arapahoe (J3), Aurora (K4), and many others.

CONNECTICUT

Table listing Connecticut locations and their populations. Includes entries like Abington (H5), Adams (C7), Addison (F6), Allentown (E7), and many others.

DELAWARE

Table listing Delaware locations and their populations. Includes entries like Ashland (H1), Bayard (J7), Beaver Valley (H1), and many others.

DISTRICT OF COLUMBIA

Table listing District of Columbia locations and their populations. Includes entries like Washington (C6), Washington Depot (C6), and many others.

FLORIDA

1915 STATE CENSUS FIGURES

Table listing Florida counties and their 1915 state census figures. Columns include county name, population, and county name, population, and county name, population.

GEORGIA

Table listing Georgia counties and their 1915 state census figures. Columns include county name, population, and county name, population, and county name, population.

Table listing cities and their populations for states from Georgia to Illinois. Columns include city names, state abbreviations, and population figures.

IDAHO

Table listing cities and their populations for the state of Idaho. Columns include city names, state abbreviations, and population figures.

ILLINOIS

Table listing cities and their populations for the state of Illinois. Columns include city names, state abbreviations, and population figures.

Table listing cities and their corresponding page numbers, organized in three columns. Includes entries like Roberts (H4), Robinson (J7), Rochelle (F2), etc.

INDIANA

Table listing cities in Indiana and their corresponding page numbers, organized in three columns. Includes entries like Abington (F9), Acton (E9), Adams (E10), etc.

Table listing names and numbers for various locations in Indiana and Iowa, including towns like Mount Carmel, New Waverly, Pence, and Rigdon.

IOWA

1915 STATE CENSUS FIGURES

Table listing names and census figures for various locations in Iowa, including towns like Abbott, Ackley, Adair, and Ames.

Table listing cities and towns from Idaho to Kentucky, including population counts and state abbreviations.

KENTUCKY

Table listing cities and towns within the state of Kentucky, including population counts and state abbreviations.

Marrow Bone, (K5) 130	Mt. Vernon, (N4) 930	Owensboro, (H3) 16,011	Poplar Plains, (O2) 190	Rotbwell, (O3) 130	Simpsonville, (L2) 185	The Ridge, (P2) 150	Wellsburg, (O1) 150
Martha, (Q2) 130	Mt. Washington, (L2) 1,400	Owenton, (M1) 1,024	Portersburg, (O4) 100	Rowland, (M3) 500	Skaggs, (Q2) 100	Thor, (P2) 100	Wentz, (F4) 200
Martinsburg, (P2) 160	Mouthard, (R4) 250	Owingsville, (O2) 942	Port Royal, (L1) 152	Rouletts, (K4) 230	Skilesville, (H4) 53	Thornton, (Q4) 100	W. Covington, (M1) 1,751
Marydell, (O4) 100	Muills, (N5) 130	Packard, (N5) 150	Potter, (Q2) 100	Ruddell Mills, (N2) 320	Slade, (O3) 400	Thine, (E4) 100	W. Irvine, (O3) 150
Mason, (M1) 130	Munfordville, (K4) 475	Pacohus, (Q2) 130	Pottertown, (E5) 100	Rumsey, (G3) 413	Slaughterville, (G4) 443	Tilton, (O2) 100	W. Liberty, (F3) 442
Maxon Mill, (D4) 300	Murphyville, (O1) 860	Paducah, (D4) 22,760	Powderly, (G4) 300	Rural, (R3) 200	Sloans Valley, (M5) 250	Tolesboro, (O1) 400	W. Louisville, (G3) 192
Mayfield, (D5) 5,916	Murray, (E5) 2,089	Paint Lick, (N3) 270	Praise, (R4) 300	Rush, (Q2) 300	Smithfield, (L2) 350	Tolu, (E4) 180	Weston, (E3) 140
Mays Lick, (O1) 308	Myers, (O2) 200	Paintsville, (Q3) 942	Preachersville, (M3) 100	Russell, (Q1) 1,038	Smithland, (E4) 557	Tompkinsville, (K5) 639	West Point, (K3) 140
Maysville, (O1) 6,141	Nancy, (M4) 100	Paisley, (M5) 130	Prestonsburg, (Q3) 1,120	Russell Springs, (L4) 104	Smiths Grove, (F3) 300	Torchlight, (Q2) 200	Whitcomb, (L2) 400
Maytown, (P3) 140	Nealy, (Q4) 100	Parola, (N3) 130	Priceville, (L1) 162	Russellville, (H5) 3,111	Smiths Grove, (F4) 726	Towers, (M1) 100	Whitcomb, (L3) 490
Maywood, (M4) 100	Nebo, (F4) 293	Paradise, (G4) 91	Princeton, (Q2) 100	Sacramento, (G4) 438	Somers, (M4) 4,491	Travellers Rest, (O4) 200	Whitehouse, (Q3) 150
Melber, (D5) 150	Nelsonville, (K3) 150	Parina, (N1) 100	Princeton, (F4) 3,015	Sadville, (M2) 467	Sonora, (K3) 250	Trenton, (G5) 653	White Mills, (K3) 100
Melbourne, (N1) 100	Nepton, (O2) 235	Paris, (N2) 5,859	Proctor, (O3) 143	St. Catharine, (L3) 130	Sorgho, (G3) 130	Troy, (M3) 100	Whitcomb, (F3) 100
Mentor, (N1) 250	Nerinx, (L3) 200	Parkers Lake, (N5) 200	Providence, (F4) 2,084	St. Charles, (F4) 600	So. Carrollton, (G4) 365	Turners Station, (L1) 115	Whiteplains, (G4) 130
Mercer, (G4) 1,200	Nevada, (M3) 200	Parksville, (M3) 200	Pryorsburg, (D5) 242	St. Helens, (O3) 151	So. Elkhorn, (M2) 100	Turnersville, (M4) 200	Whitepost, (R3) 100
Middleburg, (M4) 98	New Castle, (L2) 468	Parksville, (H3) 300	Punchon, (Q4) 300	St. Mary, (L3) 154	Southgate, (N1) 627	Tyler, (D4) 500	Whitesburg, (Q4) 320
Middlesboro, (O5) 7,305	New Columbus, (M2) 118	Pawpaw, (R4) 150	Quincy, (P1) 285	St. Matthews, (K2) 160	So. Park, (K2) 100	Tyner, (O4) 130	White Sulphur, (M2) 544
Middletown, (K2) 380	Newcombe, (P2) 100	Peach Orchard, (Q3) 500	Quinton, (M5) 500	Salem, (E4) 320	So. Portsmouth, (P1) 660	Tyrene, (M2) 544	Whitesville, (H3) 450
Midway, (M2) 937	Newfoundland, (P2) 72	Pellville, (H3) 100	Rail, (O3) 120	Salt Lick, (O2) 532	Sparks Quarry, (N4) 100	Union, (M1) 280	Whitesville, (H5) 137
Milburn, (D5) 207	New Haven, (K3) 405	Pembroke, (G5) 731	Randville, (P2) 250	Salt Lick, (O2) 532	Sparta, (M1) 107	Uniontown, (F3) 1,356	Whitely, (N5) 450
Milford, (N1) 180	New Hope, (K3) 240	Penrod, (G4) 68	Randwick, (L3) 182	Salt Lick, (O2) 532	Spotsville, (G3) 448	Upton, (K4) 141	Wickliffe, (C5) 989
Milledgeville, (M3) 100	New Liberty, (M1) 214	Peoples, (N4) 100	Raywick, (L3) 182	Salt Lick, (O2) 532	Springfield, (L3) 1,329	Urban, (O4) 400	Wildie, (N4) 100
Millersburg, (N2) 799	Newmarket, (L3) 7	Peoples, (N4) 100	Reactorville, (O1) 150	Salt Lick, (O2) 532	Springlake, (N1) 100	Utica, (G3) 200	Willard, (Q2) 177
Millertown, (J4) 160	Newport, (N1) 30,309	Perryville, (M3) 407	Redash, (N5) 500	Salt Lick, (O2) 532	Spring Lick, (H4) 190	Valley Station, (K2) 210	Williamsburg, (N5) 2,004
Milton, (L1) 355	New Rose, (J5) 150	Petersburg, (M1) 393	Redfox, (Q4) 150	Salt Lick, (O2) 532	Spring Lick, (H4) 190	Valley Station, (K2) 210	Williamsport, (Q3) 200
Micerva, (O1) 154	Newtown, (N2) 150	Pettit, (G3) 200	Redford, (Q4) 150	Salt Lick, (O2) 532	Spring Lick, (H4) 190	Valley Station, (K2) 210	Williamstown, (N1) 800
Mining City, (H4) 250	Nicholasville, (M3) 2,935	Pewee Valley, (L2) 651	Redford, (Q4) 150	Salt Lick, (O2) 532	Spring Lick, (H4) 190	Valley Station, (K2) 210	Willisburg, (L3) 150
Mitchellsburg, (L3) 290	Nolin, (K3) 150	Peyton, (L2) 200	Redford, (Q4) 150	Salt Lick, (O2) 532	Spring Lick, (H4) 190	Valley Station, (K2) 210	Williamson, (M5) 1,000
Monroe, (K4) 120	Normal, (Q2) 300	Peytontown, (N3) 200	Redford, (Q4) 150	Salt Lick, (O2) 532	Spring Lick, (H4) 190	Valley Station, (K2) 210	Wilsonville, (L2) 150
Monterey, (M2) 260	No. Fork, (O1) 200	Phelps, (R3) 150	Redford, (Q4) 150	Salt Lick, (O2) 532	Spring Lick, (H4) 190	Valley Station, (K2) 210	Wilton, (N5) 200
Monticello, (M5) 1,338	No. Middletown, (N2) 350	Phelps, (R3) 150	Redford, (Q4) 150	Salt Lick, (O2) 532	Spring Lick, (H4) 190	Valley Station, (K2) 210	Winchester, (N3) 7,156
Moorefield, (O2) 200	No. Pleasureville, (L2) 235	Phelps, (R3) 150	Redford, (Q4) 150	Salt Lick, (O2) 532	Spring Lick, (H4) 190	Valley Station, (K2) 210	Wingo, (D5) 404
Moore Creek, (O4) 100	Nortonville, (G4) 254	Phelps, (R3) 150	Redford, (Q4) 150	Salt Lick, (O2) 532	Spring Lick, (H4) 190	Valley Station, (K2) 210	Wisemanstown, (O3) 100
Moore Ferry, (O2) 500	Oakdale, (O3) 250	Phelps, (R3) 150	Redford, (Q4) 150	Salt Lick, (O2) 532	Spring Lick, (H4) 190	Valley Station, (K2) 210	Wolf, (P2) 300
Morehead, (P2) 1,105	Oakdale, (K2) 2,073	Phelps, (R3) 150	Redford, (Q4) 150	Salt Lick, (O2) 532	Spring Lick, (H4) 190	Valley Station, (K2) 210	Wolf Creek, (J2) 150
Moreland, (M4) 250	Oakland, (J4) 257	Phelps, (R3) 150	Redford, (Q4) 150	Salt Lick, (O2) 532	Spring Lick, (H4) 190	Valley Station, (K2) 210	Woodbine, (N5) 100
Morganfield, (F3) 2,725	Oakton, (C5) 200	Phelps, (R3) 150	Redford, (Q4) 150	Salt Lick, (O2) 532	Spring Lick, (H4) 190	Valley Station, (K2) 210	Woodburn, (H5) 217
Morgantown, (H4) 569	Oak View, (O2) 100	Phelps, (R3) 150	Redford, (Q4) 150	Salt Lick, (O2) 532	Spring Lick, (H4) 190	Valley Station, (K2) 210	Woodbury, (H4) 173
Morningview, (M1) 100	Oakwood, (O2) 130	Phelps, (R3) 150	Redford, (Q4) 150	Salt Lick, (O2) 532	Spring Lick, (H4) 190	Valley Station, (K2) 210	Woodville, (O3) 100
Morrow, (M5) 100	Oddville, (N2) 120	Phelps, (R3) 150	Redford, (Q4) 150	Salt Lick, (O2) 532	Spring Lick, (H4) 190	Valley Station, (K2) 210	Woodville, (D4) 250
Mortons Gap, (G4) 1,266	Olin, (O4) 200	Phelps, (R3) 150	Redford, (Q4) 150	Salt Lick, (O2) 532	Spring Lick, (H4) 190	Valley Station, (K2) 210	Worley, (M5) 150
Mortonsville, (M3) 200	Olive Hill, (P2) 1,132	Phelps, (R3) 150	Redford, (Q4) 150	Salt Lick, (O2) 532	Spring Lick, (H4) 190	Valley Station, (K2) 210	Worthingville, (M1) 326
Moscow, (C5) 500	Olympia, (O2) 200	Phelps, (R3) 150	Redford, (Q4) 150	Salt Lick, (O2) 532	Spring Lick, (H4) 190	Valley Station, (K2) 210	Wurtland, (Q1) 190
Moseleyville, (G3) 100	Omaha, (Q4) 150	Phelps, (R3) 150	Redford, (Q4) 150	Salt Lick, (O2) 532	Spring Lick, (H4) 190	Valley Station, (K2) 210	Xena, (O3) 130
Mountain Ash, (N5) 100	Opper, (P3) 130	Phelps, (R3) 150	Redford, (Q4) 150	Salt Lick, (O2) 532	Spring Lick, (H4) 190	Valley Station, (K2) 210	Yaho, (N4) 100
Mt. Carmel, (O2) 81	Oppo, (R3) 150	Phelps, (R3) 150	Redford, (Q4) 150	Salt Lick, (O2) 532	Spring Lick, (H4) 190	Valley Station, (K2) 210	Yale, (P2) 200
Mt. Eden, (L2) 157	Orangeburg, (O1) 100	Phelps, (R3) 150	Redford, (Q4) 150	Salt Lick, (O2) 532	Spring Lick, (H4) 190	Valley Station, (K2) 210	Yeligton, (H3) 400
Mt. Olivet, (N1) 321	Ovenfork, (Q4) 100	Phelps, (R3) 150	Redford, (Q4) 150	Salt Lick, (O2) 532	Spring Lick, (H4) 190	Valley Station, (K2) 210	Yosemite, (M4) 90
Mt. Pleasant, (P5) 657		Phelps, (R3) 150	Redford, (Q4) 150	Salt Lick, (O2) 532	Spring Lick, (H4) 190	Valley Station, (K2) 210	Yost, (G4) 150
Mt. Sterling, (O2) 3,932		Phelps, (R3) 150	Redford, (Q4) 150	Salt Lick, (O2) 532	Spring Lick, (H4) 190	Valley Station, (K2) 210	Zion, (F3) 224

LOUISIANA

Abbeville, (F7) 2,907	Bourg, (J7) 500	Donaldsonville, (H6) 4,090	Grace, (E3) 250	Kingston, (C2) 500	Maud, (L6) 150	Point Pleasant, (H2) 130	Solitude, (H5) 200
Abita Springs, (L6) 365	Boutte, (K7) 300	Donner, (J7) 200	Gramercy, (J6) 200	Kipling, (D5) 200	Maurer, (J6) 150	Pollock, (F4) 675	Spearsville, (E1) 120
Acy, (J6) 500	Bowie, (E4) 1,200	Dorcyville, (H6) 200	Grand Cane, (C2) 483	Klutzyville, (H6) 500	Maxie, (F6) 500	Ponchatoula, (K6) 1,055	Springfield, (J6) 250
Adeline, (G7) 500	Boyer, (E4) 865	Dress, (G1) 150	Grand Coteau, (G6) 392	Knowlton, (H6) 500	Melville, (G5) 1,093	Port Allen, (H6) 750	Springhill, (D1) 500
Albemarle, (H7) 1,200	Breaux Bridge, (G6) 1,869	Dry Prong, (E3) 100	Grappes Bluff, (D3) 300	Laak, (H1) 120	Mer Rouge, (G1) 536	Port Barre, (G5) 600	Springville, (J6) 100
Alberta, (D2) 500	Brockdale, (K4) 100	Dry Prong, (E3) 100	Grappes Bluff, (D3) 300	Labadieville, (H7) 500	Mer Rouge, (G1) 536	Port Barre, (G5) 600	Stables, (D4) 600
Alden Bridge, (C1) 500	Broussard, (G6) 499	Dubach, (E1) 714	Grasson, (F2) 200	Lacombe, (K6) 600	Midland, (E6) 200	Port Eads, (M8) 200	Stamboul, (H1) 300
Alexandria, (F4) 11,213	Brunt, (H1) 100	Dubach, (E1) 714	Greensburg, (J5) 268	Lafayette, (F6) 6,392	Millikens, (H1) 200	Port Hudson, (H5) 350	Standard, (F3) 600
Allemands, (K7) 500	Brusley Landing, (H6) 300	Dubuisson, (F5) 250	Greenwood, (B2) 250	Lafourche Crossing, (J7) 400	Millton, (F6) 200	Port Vincent, (J6) 200	Starling, (L6) 200
Alto, (G2) 500	Bryceland, (E2) 250	Dugas, (F6) 120	Greta, (K7) 3,700	Lake, (J6) 300	Minden, (D1) 3,002	Potash, (L8) 320	Starlington, (F1) 400
Alton, (L6) 100	Buckeye, (F4) 100	Dutab, (Tow) 1,081	Gruyere, (G6) 500	Lake Arthur, (E6) 1,093	Moberly, (K7) 500	Potter, (G6) 100	Stevenson, (G1) 100
Ama, (K7) 400	Bunkie, (F5) 1,765	Dutab, (Tow) 1,081	Gueydan, (E7) 1,081	Lake Charles, (D6) 11,449	Monroe, (F1) 10,209	Powhatan, (D3) 200	Stonewall, (C2) 150
Amelia, (H7) 200	Burke, (L8) 500	Dutab, (Tow) 1,081	Gulletts Station, (J5) 200	Lakeland, (H5) 100	Montegut, (K8) 150	Prairieville, (J6) 200	Stonypoint, (J5) 100
Amesville, (K7) 1,677	Bursum, (J6) 100	Dutab, (Tow) 1,081	Gulletts Station, (J5) 200	Lake Providence, (H1) 1,568	Montpelier, (J5) 600	Pride, (J5) 150	Strader, (K6) 200
Amita, (K5) 300	Burton, (J7) 400	Dutab, (Tow) 1,081	Gulletts Station, (J5) 200	Lake Providence, (H1) 1,568	Montpelier, (J5) 600	Pride, (J5) 150	Strader, (K6) 200
Anchor, (H5) 150	Cades, (G6) 260	Dutab, (Tow) 1,081	Gulletts Station, (J5) 200	Lake Providence, (H1) 1,568	Montpelier, (J5) 600	Pride, (J5) 150	Strader, (K6) 200
Andrew, (F6) 346	Camden, (F1) 260	Dutab, (Tow) 1,081	Gulletts Station, (J5) 200	Lake Providence, (H1) 1,568	Montpelier, (J5) 600	Pride, (J5) 150	Strader, (K6) 200
Angie, (L5) 600	Camden, (F1) 260	Dutab, (Tow) 1,081	Gulletts Station, (J5) 200	Lake Providence, (H1) 1,568	Montpelier, (J5) 600	Pride, (J5) 150	Strader, (K6) 200
Anslay, (E2) 350	Camden, (F1) 260	Dutab, (Tow) 1,081	Gulletts Station, (J5) 200	Lake Providence, (H1) 1,568	Montpelier, (J5) 600	Pride, (J5) 150	Strader, (K6) 200
Antrim, (C1) 250	Camden, (F1) 260	Dutab, (Tow) 1,081	Gulletts Station, (J5) 200	Lake Providence, (H1) 1,568	Montpelier, (J5) 600	Pride, (J5) 150	Strader, (K6) 200
Arabi, (L7) 300	Camden, (F1) 260	Dutab, (Tow) 1,081	Gulletts Station, (J5) 200	Lake Providence, (H1) 1,568	Montpelier, (J5) 600	Pride, (J5) 150	Strader, (K6) 200
Arbroth, (H5) 100	Camden, (F1) 260	Dutab, (Tow) 1,081	Gulletts Station, (J5) 200	Lake Providence, (H1) 1,568	Montpelier, (J5) 600	Pride, (J5) 150	Strader, (K6) 200
Arcadia, (E1) 1,079	Camden, (F1) 260	Dutab, (Tow) 1,081	Gulletts Station, (J5) 200	Lake Providence, (H1) 1,568	Montpelier, (J5) 600	Pride, (J5) 150	Strader, (K6) 200
Arcoia, (K5) 100	Camden, (F1) 260	Dutab, (Tow) 1,081	Gulletts Station, (J5) 200	Lake Providence, (H1) 1,568	Montpelier, (J5) 600	Pride, (J5) 150	Strader, (K6) 200
Ariel, (J7) 279	Camden, (F1) 260	Dutab, (Tow) 1,081	Gulletts Station, (J5) 200	Lake Providence, (H1) 1,568	Montpelier, (J5) 600	Pride, (J5) 150	Strader, (K6) 200
Araudville, (G6) 200	Camden, (F1) 260	Dutab, (Tow) 1,081	Gulletts Station, (J5) 200	Lake Providence, (H1) 1,568	Montpelier, (J5) 600	Pride, (J5) 150	Strader, (K6) 200
Asland, (D2) 514	Camden, (F1) 260	Dutab, (Tow) 1,081	Gulletts Station, (J5) 200	Lake Providence, (H1) 1,568	Montpelier, (J5) 600	Pride, (J5) 150	Strader, (K6) 200
Athens, (D1) 300	Camden, (F1) 260	Dutab, (Tow) 1,081	Gulletts Station, (J5) 200	Lake Providence, (H1) 1,568	Montpelier, (J5) 600	Pride, (J5) 150	Strader, (K6) 200
Atlanta, (E3) 311	Camden, (F1) 260	Dutab, (Tow) 1,081	Gulletts Station, (J5) 200	Lake Providence, (H1) 1,568	Montpelier, (J5) 600	Pride, (J5) 150	Strader, (K6) 200
Avery Island, (G7) 200	Camden, (F1) 260	Dutab, (Tow) 1,081	Gulletts Station, (J5) 200	Lake Providence, (H1) 1,568	Montpelier, (J5) 600	Pride, (J5) 150	Strader, (K6) 200
Avoca, (H7) 250	Camden, (F1) 260	Dutab, (Tow) 1,081	Gulletts Station, (J5) 200	Lake Providence, (H1) 1,568	Montpelier, (J5) 600	Pride, (J5) 150	Strader, (K6) 200
Ayers, (D4) 250	Camden, (F1) 260	Dutab, (Tow) 1,081	Gulletts Station, (J5) 200	Lake Providence, (H1) 1,568	Montpelier, (J5) 600	Pride, (J5) 150	Strader, (K6) 200
Baldwin, (H5) 1,000	Camden, (F1) 260	Dutab, (Tow) 1,081	Gulletts Station, (

MARYLAND

Table listing Maryland locations and their 1915 state census figures. Includes locations like Aberdeen, Abingdon, Accident, etc., with population counts.

MASSACHUSETTS

1915 STATE CENSUS FIGURES = Population of Township

Table listing Massachusetts locations and their 1915 state census figures. Includes locations like Abington, Acton, Acushnet, etc., with population counts.

Table listing locations in Minnesota and Mississippi with their corresponding page numbers. Includes entries like Little Falls (G8), Littlefork (H3), London (J12), Long Lake (J9), Long Prairie (F8), Longville (G6), Lonsdale (J10), Loreto (H9), Louisburg (C9), Lowry (D8), Lucan (E11), Luce (D6), Luverne (C12), Lyle (K12), Lynd (D11), McGregor (J6), McIntosh (D4), McKinley (L4), Mabel (M12), Madelia (G11), Madison (C9), Madison Lake (H11), Magnolia (C12), Mahanomen (D5), Mallard (E5), Manchester (J12), Manitoba Junction (C6), Mankato (H11), Mantorville (K11), Maple Bay (C4), Maple Lake (H9), Maple Plain (H9), Mapleton (G12), Marble (J5), Marietta (C10), Marine Mills (K9), Marshall (D11), Matawan (H12), Mayer (H10), Maynard (D10), Mazepa (L11), Medford (J11), Meiregrove (F8), Melby (D7), Melrose (F8), Menasha (F6), Mendota (J10), Mentor (C4), Meriden (J11), Mesaba (L4), Middle River (C3), Midway (L6), Milaca (H8), Milan (D9), Millerville (E7), Millville (L11), Milroy (D11), Minneapolis (J10), Minnetonka (J10), Minnetonka Beach (J10), Mizpah (G4), Mole (M5), Monterey (F12), Montevideo (D10), Montgomery (J11), Monticello (H9), Montrose (H9), Moorhead (H6), Mooselake (K7), Mora (J8), Morgan (F11), Morris (D8), Morrilton (J11), Morton (F10), Motley (F7), Mound (H10), Mt. Iron (K4), Mt. Lake (F12), Mungler (L6), Murdock (E9), Myrtle (J12), Nary (F5), Nashua (C7), Nashuak (J5), Nassau (C9), Nelson (E8), Nerstrand (K11), Nevis (F6), New Auburn (G10), New Brighton (J10), New Duluth (L6), Newfolden (C3), New Germany (G10), New London (E9), Newmark (J10), New Munich (F8), Newport (K10), New Prague (H10), New Richland (H12), New Trier (K10), New Ulm (F11), New York Mills (E6), Nicotlet (G11), Nielsville (B4), Norcross (C8), Northbranch (J9), Northfield (K11), N. Mankato (G11), Northome (G4), North Prairie (G8), N. Redwood (E10), N. Saint Paul (K9), Norwood (H10), Nymore (F5), Oakland (J12), Odessa (C9), Odin (F12), Ogema (D5), Ogilvie (J8), Okabena (E12), Okie, (D4), Olma, (F10), Olivia (H7), Orleans (H2), Ormsby (F12), Oronoco (L11), Ortonville (C9), Osakis (E8), Oslo, (A3), Osseo, (J9), Ostrander (L12), Ottawa (H11), Ottetail (E7), Owatonna (J11), Parkers Prairie (E7), Park Rapids (F6), Paynesville (F9), Pelican (C2), Pelican Rapids (D6), Pemberton (H11), Pennock (E9), Pequot (G6), Perham (D6), Perley (B5), Peterson (M12), Pettrel (M5), Phillbrook (F7), Pickwick (M12), Pierz (G7), Pike (L4), Pillager (G7), Pine City (K8), Pine Island (K11), Pine River (G6), Pipestone (C11), Plainview (L11), Plato, (G10), Pleasant Grove (L12), Plummer (D4), Plumber, (C10), Potsdam (L11), Preston (L12), Princeton (H10), Prior Lake (J10), Proctor (L6), Prosper (M12), Racine (K12), Rainy Lake City (J2), Randall (F7), Randolph (K10), Ranier (J2), Raymond (E9), Reading (D12), Redby (F4), Red Lake (E4), Red Lake Falls (C4), Red Wing (L10), Redwood Falls (E10), Reeds (L11), Reno (N12), Revilla (E10), Revere (E11), Rice (G8), Richdale (E6), Richfield (J10), Richmond (G8), Rich Valley (J10), Richville (D6), Richmond (D6), Robbinsdale (J9), Rochester (L11), Rockcreek (K8), Rockford (H9), Rockville (G9), Rogers (H9), Rolling Stone (M11), Ronneby (H8), Roosevelt (E2), Roseau (D2), Rose Creek (K12), Rosemount (J10), Rothsay (C7), Round Lake (E12), Royalton (G8), Rush City (K8), Rushton (city), (M12), Rushton (village), (M12), Rushmore (D12), Russell (D11), Ruthon, (C11), Rutledge, (K7), Sabin, (B6), Sacred Heart (E10), Saint Augusta (G9), St. Bonifacius (H10), St. Charles (M12), Saint Clair (H11), Saint Cloud (G8), Saint Francis (J9), Saint Hilaire (C3), Saint James (F11), Saint Joseph (G8), St. Louis Park (J10), Saint Martin (F9), Saint Michael (H9), St. Michael Sta. (H9), ST. PAUL (K10), St. Paul Park (K9), Saint Peter (G11), Saint Vincent (A2), Sanborn (E11), Sandstone (K7), Sargeant (K12), Sartell (G8), Sauk Center (F8), Sauk Rapids (G8), Savage (J10), Scandia (K9), Scanlon (L6), Seaforth (E11), Sebeka (E6), Sedan (E8), Sellwood (M4), Shafer (K9), Shakopee (H10), Shelly (B5), Sherburne (F12), Shevlin (E4), Silver Creek (G9), Silver Lake (G10), Skibo (M5), Slayton (D12), Sleepy Eye (F11), Solway (E4), South Haven (G8), South Park (J10), S. Saint Paul (J10), S. Stillwater (K9), Sparta (L5), Spicer (E9), Spooner (F2), Springfield (E11), Spring Grove (M12), Spring Hill (F8), Spring Lake (K8), Spring Park (H10), Spring Vale (J8), Spring Valley (L12), Stacy (K9), Staples (F7), Starbuck (E8), Steen (C12), Stephen (B3), Stevenson (J5), Stewart (G10), Stillwater (K12), Stillwater (K9), Stockton (M11), Storden (E11), Strandquist (B3), Sturgeon Lake (K7), Sunburg (E9), Sundby (L6), Sunrise (K8), Swanville (F8), Taconite (J5), Taopi (K12), Taunton (D10), Taylors Falls (K9), Tenney (C7), Tenstrike (F4), Terrebonne (C4), Theilman (L11), Thief River Falls (C3), Thomson (L6), Tintah (C8), Tonka Bay (H10), Tower (L4), Tracy (D11), Triumph (F12), Trosky (C12), Truman (F12), Turtle River (F4), Twin Lakes (J12), Twin Valley (C5), Two Harbors (M15), Tyler (C11), Ulen (C5), Underwood (D7), Utica (M12), Valley Creek (K10), Vasa (K10), Verdi (C11), Vergas (D6), Vermillion (K10), Verndale (F7), Vernon Center (G12), Veseli (J10), Vesta (E10), Victoria (H10), Viking (C3), Villard (E8), Vining (E7), Viola (L11), Virginia (L4), Wabasha (L11), Waconia (E11), Wadena (E7), Wahnok (J7), Waite Park (G8), Waldorf (H12), Walker (F5), Walnut Grove (D11), Walters (H12), Waltham (K12), Wanamingo (K11), Wanda (E11), Warren (B3), Warren (B3), Warroad (E2), Warsaw (J11), Waseca (H11), Washington (L12), Wasejia (K11), Waterford (J10), Watertown (H10), Waterville (J11), Watkins (G9), Watson (D9), Waubun (D5), Waverly (H9), Wayzata (J10), Weaver (M11), Webster (J11), Wegdahl (D10), Welcome (F12), Wells (H12), Wendell (C7), Westby (J10), Westbrook (E11), W. Concord (K11), West Minneapolis (J10), Westport (E8), W. St. Paul (J10), West Union (E8), Wheelan (M12), Wheeland (H11), Wheaton (C8), White Bear Lake (J9), White Earth (D5), Wilder (E2), Willmar (E9), Willow River (K7), Wilmont (D12), Wilton (F4), Windom (E12), Winger (D4), Winnebago (G12), Winona (M11), Winsted (G10), Winthrop (G10), Winton (M4), Witoka (M12), Wolverton (B6), Woodlake (E10), Woodstock (C11), Worthington (E12), Wrenshall (L6), Wyckoff (L12), Wylie (C4), Wyoming (K9), Young America (H10), Zimmerman (H9), Zions (G9), Zumbro Falls (L11), Zumbrota (K11)

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Table listing locations in Mississippi with their corresponding page numbers. Includes entries like Abbeville (F3), Aberdeen (G4), Ackerman (F5), Acona (D5), Adair (D5), Agricultural College (G5), Airey (F10), Albertson (F8), Alcorn (E8), Algoma (F3), Alligator (C3), Almadale (D7), Amory (H4), Anding (D6), Anguilla (C6), Arbo (E8), Arcadia (B6), Arcola (C5), Arkabutla (D2), Artesia (G5), Ashland (F2), Atlanta (F4), Austin (D2), Bailey (G7), Baird (C5), Baldwin (G3), Banks (D2), Banner (D1), Barlow (C8), Bassfield (E8), Batesville (E3), Battlefield (G6), Baxterville (E9), Bay Springs (F11), Bay Springs (F8), Beaumont (G9), Beauregard (D8), Belden (G3), Belen (D3), Bellefontaine (F4), Belleprairie (D6), Belmont (H2), Belzoni (C5), Benoit (C4), Benton (D6), Bentonia (D6), Berclair (D5), Beulah (B4), Bexley (G10), Bigbee (G3), Bigbee Valley (F5), Big Creek (F4), Biloxi (G11), Binnsville (H6), Black Hawk (E5), Blaine (C4), Blue Lake (D4), Blue Mountain (F2), Blue Springs (G3), Bobo (C3), Bogue Chitto (C9), Bolivar (B4), Bolton (D7), Bond (F10), Bon Homme (F9), Booneville (H2), Booth (C6), Boyd (D9), Boyle (C4), Bradley (G5), Brandon (E7), Braxton (E7), Brazoria (H5), Brevort (C6), Brookhaven (C8), Brooklyn (F9), Brookville (G5), Bucatunna (G8), Buena Vista (G4), Burnsville (H2), Byhalia (E2), Byram (D7), Caledonia (H4), Calhoun City (F4), Camden (E6), Canton (E6), Carolia (B6), Carpenter (C7), Carriere (E10), Carrollton (E5), Carson (E8), Carthage (E6), Cary (C6), Casilla (D4), Cedarbluff (G4), Centerville (B9), Chaney (D3), Charleston (D3), Cherry Creek (F3), Chester (F5), Chesterville (G3), Chitard (C6), Chitot (C3), Chulahoma (E2), Clarksburg (E7), Clarksdale (E7), Clarkson (F4), Claude (E9), Clayton (D2), Clermont Harbor (F11), Cleveland (C4), Cliftonville (H5), Clinton (D7), Clover Hill (D3), Clyde (F9), Coahoma (D3), Cochrum (E2), Coffeeville (E4), Coldwater (E2), Coles (B9), Collegehill (E3), Collins (E9), Columbia (E9), Columbus (G5), Como (E2), Conchatta (F7), Conway (E6), Coopersville (E7), Coral (E9), Corinth (H2), Cotton Plant (G2), Courtland (E3), Craig (C6), Crawford (D3), Crenshaw (G5), Crenshaw (G5), Crossroads (G10), Crosser (D5), Crystal Springs (D8), Cude (D5), Cumberland (F4), Dahomy (C4), Daleville (G6), Dancy (F4), Darden (E2), Darling (D3), Decatur (F7), Deason (C3), De Kalb (G6), De Lisle (F11), Dennis (H2), Derma (F4), De Soto (G8), Dixon (F6), Dix (E8), Doddsville (D4), Donnvan (H10), Dorsey (H3), Dossyville (E6), Drew (D4), Dry Grove (D7), Dubbs (D2), Dublin (D3), Duck Hill (E4), Dumas (G2), Duncan (C3), Duncansby (B6), Dundee (D2), Durant (E5), Eastside (G11), Eabenezer (D6), Ecu (F3), Eddicenton (C8), Eden (D6), Edinburg (F6), Edith (G9), Edwards (C7), Egypt (G4), Elarbee (F10), Elizabeth (C5), Elliott (E4), Ellisville (F8), Elwood (G7), Endville (G3), Enid (E3), Enterprise (G7), Epess (F9), Escatawpa (G11), Essex (D3), Estabutchie (F9), Ethel (E5), Eudora (D2), Eupora (F4), Evansville (D2), Fairport (G5), Fair River (D8), Falcon (D3), Falkner (G2), Fannin (E7), Farrell (C2), Fayette (B8), Fears Springs (G5), Fenton (F11), Fentress (F5), Flora (D6), Florence (D7), Forest (F7), Fore Adams (A9), French Camps (F5), Friar Point (C3), Fulton (H3), Gainsville (E11), Gallman (D8), Gandsi (F8), Garlandville (F7), Gattman (H4), Gautier (G11), Gautier (G11), Geeville (G2), Georgetown (D8), Gibson (G4), Gilford (F7), Gillsburg (C9), Gitano (F8), Glen Allen (B5), Glendora (D4), Gloster (C9), Gluckstadt (D6), Golden (H3), Good Hope (E6), Goodman (E6), Grace (C6), Grand Guli (B7), Graysport (E4), Greengrove (C3), Greenville (B5), Greenwood (D5), Grenada (E4), Gulfport (F11), Gunnison (C4), Guntown (G3), Hale (G8), Hamburg (B8), Hampton (C5), Handsboro (F11), Hardy Station (E4), Harpersville (F7), Harrison (C8), Hattiesburg (F9), Hazlehurst (D8), Heidelberg (F8), Hernandeville (C8), Hernando (D2), Hickman (E9), Hickory (F7), Hickory Flat (F2), Highlandale (D4), Highpoint (F5), Hillsboro (F7), Hincheliff (D3), Hiwannee (G8), Holcomb (E4), Hollandale (C5), Holly Bluff (C6), Holly Springs (E2), Holly Ridge (C5), Hollywood (D2), Holmesville (D9), Home Park (D6), Homewood (F7), Hopewell (D8), Horn Lake (E2), Houka (G3), Houston (G4), Howard (D5), Howison (F10), Hub (E9), Hurey (G10), Huron (C9), Increase (G7), Inda (F10), Independence (E2), Indianola (C5), Iogomarr (F3), Inverness (C5), Isola (C5), Ittabena (D4), Iuka (H2), JACKSON (D7), Jacobs (B8), Jessie (E6), Johnstons Sta. (C9), Jonestown (D3), Keel (F3), Kendrick (H2), Kilimichael (E5), Kilm (F11), Kipling (G6), Kirkville (H3), Knoxville (B9), Kola (E8), Kosciusko (E5), Kossuth (G2), Ladner (F10), Lafayette Springs (F3), Lake (F7), Lake Como (F8), Lake Cormorant (D2), Lakesboro (F11), Lamar (F2), Lambert (D3), Latonia (H3), Lauderdale (H6), Laurel (F8), Lawrence (F7), Leaf (G9), Leakesville (G9), Learned (C7), Lena (E6), Leota Landing (B5), Lexington (E5), Liberty (C9), Little Springs (C9), Lizana (F10), Lockhart (G6), Logtown (E11), Long Beach (F11), Longtown (D2), Longview (G5), Lorena (F2), Lorenzen (C6), Lorraine (F11), Louin (F7), Louise (C6), Louisville (F5), Love Station (E2), Lucedale (G10), Lucien (C8), Ludlow (E6), Lula (D3), Lumberton (E10), Lyman (F10), Lynn Creek (G5), Lyon (C3), Lytle (G2), McCall (C9), McComb (C9), McCool (F5), McHenry (F10), McLain (G9), McLaurin (F9), McNair (B8), McNeill (E10), Maben (F4), Magee (E8), Madison Sta. (D7), Magee (E8), Magnolia (D9), Malcum (D8), Mantachie (H3), Mantee (F4), Marathon (C5), Marie (C4), Marietta (H3), Marion (G7), Marks (D3), Mashulaville (G5), Matagorda (D3), Mathiston (F4), Mattson (D3), Mayersville (C6), Mayhew (G5), Meadville (C9), Meehan Junc. (G7), Mendenhall (E8), Meridian (G7), Merigold (C4), Merrill (G10), Michigan City (F2), Midnight (C5), Millard (E10), Miller (E2), Minter City (D4), Mish (E8), Mississippi City (G11), Mize (E8), Money (D4), Monroe (C9), Monticello (D8), Montpelier (G4), Montrose (F7), Moorehead (D5), Morton (E7), Mossell (F9), Moss (F8), Moss Point (H11), Mound Bayou (C4), Mount Carmel (E8), Mount Olive (E8), Muldon (G4), Mullonville (E6), Myrtle (F2), Napanee (C5), Natchez (D8), Nesbitt (B2), Neshoba (F6), Nettleton (G3), New Albany (F2), New Augusta (F9), Newhebron (D8), Newton (F7), Newtonia (B9), Nicholson (E11), Nola (D8), Norfield (C9), Northcarrollton (E4), N. Greenwood (D4), Noxapater (F6), Nugent (F11), Oakland (E3), Oakley (C7), Oak Vale (E9), Ocean Springs (G11), Odle (E9), Ofahoma (E6), Okolona (G3), Olive Branch (E2), Oma (D8), Ora (E8), Orange Grove (H10), Orvisburg (E10), Osyka (D9), Overt (G9), Owens Wells (D5), Oxford (F3), Pace (C4), Pachuta (G7), Paden (H2), Paris (F3), Pascagoula (H11), Pass Christian (F11), Patterson (C8), Paulding (F7), Paynes (D4), Pearlman (E8), Pearlton (D11), Pearlton (E11), Pelahatche (E7), Penton (D2), Percy (C5), Perkinson (F10), Perthshire (C4), Petal (F9), Pheba (G4), Philadelphia (F6), Philippi (D4), Picayune (E10), Pickens (E6), Pineburg (E9), Pine Valley (E3), Pinola (E8), Pittman (E9), Pittsboro (F4), Plattersville (G3), Plattsburg (F6), Pleasant Hill (E2), Pochahontas (D7), Pontotoc (F3), Pope (E3), Poplar Springs (G3), Poplarville (F10), Port Gibson (C8), Potosi (C6), Potts Camp (F2), Prairie (G4), Prairie Point (H5), Prentiss (E8), Puckett (E7), Pulaski (E7), Purvis (F9), Quince (H4), Quitman (G7), Raleigh (E7), Randolph (F3), Rara Avis (H3), Ratliff (G3), Raymond (D7), Refuse (F10), Reform (F5), Renalora (C3), Rich (D3), Richburg (F9), Richey (C5), Richton (G9), Ridgeland (D7), Rienzi (G2), Ripley (G2), Robinsonville (D2), Rockport (D8), Rodney (B8), Rolling Fork (C6), Rome (C4), Rosedale (C4), Rose Hill (F7), Rosetta (B9), Roxie (B8), Ruleville (D4), Rural Hill (F5), Russum (B8), Saboga (F4), Sallis (E5), Sandford (F9), Sandhill (G3), Sarab (D2), Saratoga (E8), Sardin (E3), Sarcetta (F3), Sartier (C6), Saucier (F10), Schlater (D4), Scobery (E4), Scooba (H6), Seminary (F8), Senatobia (E2), Sessums (G5), Shannon (G3), Sharon (E6), Shaw (C4), Shelby (C4), Sherman (G3), Shiloh (B6), Shivers (D8), Shubuta (G8), Shuqualak (G6), Sidon (D5), Silver City (C5), Silver Creek (D8), Silver Springs (G2), Slate Spring (F4), Sledge (D3), Smithdale (C9), Smithville (H3), Sontag (D8), Soso (F8), S. Pascagoula (G11), Spanish Fort (C6), Springfield (F3), Standing Pine (E6), Star (D7), Starkville (G5), State Line (G9), Stewart (F5), Stoneville (C5), Stonewall (G7), Stonington (C8), Strayhorn (D2), Stringer (F8), Strong (G4), Sturgis (F5), Summerland (F8), Summit (D9), Sumner (D4), Sumrall (E9), Sunflower (D4), Sunny Side (D4), Sycamore (G4), Sylvarena (F7), Taylor (E3), Taylorsville (F8), Tchula (D5), Terry (D7), Thaxton (F3), Thornton (D5), Thrasher (H2), Tibbee Sta. (G4), Tilden (H3), Tillatoba (E3), Tishomingo (H2), Toccopola (F3), Tocowa (D3), Toomolen (F5), Toombs (G7), Trenton (E7), Troy (G3), Tula (F3), Tunica (D2), Tupelo (G3), Tutwiler (D3), Tyertown (D9), Tyro (E2), Union (F6), Union Church (C8), Upton (E8), Uriel (G8), Utica (C7), Valden (E5), Valley (D6), Vance (D3), Vancleave (G10), Vardaman (F4), Vaughan (D6), Verna (D9), Vernal (G9), Verona (G3), Vicksburg (C7), Vosburg (G8), Wahalak (G6), Wald (F6), Walfield (G3), Walton (D2), Walnut Grove (F6), Walnut Hall (F4), Wanilla (D8), Washington (B8), Waterford (F2), Water Valley (E3), Waveland (E11), Waynesboro (G8), Weathersby (E8), Webb (D4), Weir (F5), Wesson (D8), Wheeler (E2), Whitesand (E8), Wiggins (F10), Wilkesburg (E9), Williamsburg (E8), Winslowville (C8), Winboro (F2), Winchester (G8), Winona (F5), Winterville (B5), Wisdom (F10), Wisner (F8), Woodland (F4), Woodville (B9), Wren (G4), Yazoo City (D6), Zilpha (E5), Zion Hill (C9)

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Table listing Missouri cities and their populations, organized in columns. Includes cities like Adrian, Advance, Affton, Albany, Alexandria, Albright, Allendale, Allen, Allenton, Alma, Altamont, Altenburg, Altheim, Alton, Altona, Amazonia, Americus, Amity, Amoret, Amsterdam, Anderson, Anglum, Annapolis, Anniston, Annett, Appleton, Arbela, Arcadia, Archie, Arcola, Ardeola, Ardmore, Argyle, Arkoe, Armstrong, Arnica, Arrow Rock, Asbury, Ashburn, Ashville, Ash Grove, Ashland, Ashley, Ashton, Athens, Atherton, Atlanta, Augusta, Aullville, Aurora, Aurora Springs, Austin, Auxvasse, Ava, Avalon, Avilla, Avon, Bagnell, Bakersfield, Ballwin, Bardley, Baring, Barnard, Barnett, Barry, Battlefield, Bay, Bayouville, Beaman, Beaufort, Bedford, Belgrade, Belle, Bellefontaine, Bellevue, Bellflower, Belmont, Belton, Benton, Benton City, Berger, Bernie, Bertrand, Bethany, Bethel, Bevier, Bigelow, Billings, Birch Tree, Bird Point, Birmingham, Bismarck, Blackburn, Blackjack, Blackwater, Blairtown, Bland, Blodgett, Bloodland, Bloomfield, Bloomsdale, Blue Ridge, Blue Springs, Blythehead, Blythe, Bogard, Bogs, Bogaert, Bolivar, Bolivar, Bonfils, Bonne Terre, Bonnett, Booneville, Bosworth, Bourbon, Bowen, Bower Mills, Bowling Green, Brandville, Branson, Brashear, Brayley, Braymer, Breckenridge, Brewer, Bridgeton.

Table listing Missouri locations and their corresponding page numbers, including Speed (G5), Spickard (E2), Spoonerville (M10), Sprague (D6), Spring City (C9), Springfield (F8), Spring Garden (H6), Sprott (M7), Spurgeon (D9), Stahl (G2), Stanberry (C2), Stark City (D9), Steele (N10), Steelville (K7), Steffenville (J3), Stella (D9), Stephens Store (H5), Stewartville (C3), Stockton (E7), Stotesbury (C7), Stotts City (E8), Stoutland (G7), Stoutsville (J3), Stover (G6), Strafford (F8), Strasburg (D5), Stratmann (M5), Sturgeon (H4), Sugar City (H3), Sugar Creek (D4), Sully (K6), Sulphur Springs (M6), Summersville (J8), Sumner (F3), Swedeberg (H7), Sweet Springs (F5), Syentite (M7), Syracuse (G5), Sylvanville (E6), Taft (L9), Taneyville (F9), Tans (H6), Tarkio (B2), Tea (K6), Tebbetts (J5), Teresita (J9), Thayer (J9), Thomas Hill (G3), Thomasville (J9), Thornfield (G9), Tiff City (C9), Tina (F3), Tindall (E2), Tipton (G5), Topozark (L7), Tracy (C4), Trask (J9), Treolar (K5), Trenton (E2), Trimble (C4), Triplett (F4), Troy (K5), Truxton (K4), Turney (D3), Tuscumbia (H6), Tuxedo (M5), Tyler (N10), Ulman (H6), Union (L6), Union Star (C3), Uniontown (N7), Unionville (F2), University (M5), Urbana (F7), Ulrich (D6), Utica (E3), Valley Park (L5), Vanburen (L9), Vandalia (J4), Vanduser (N9), Verona (E9), Versailles (G6), Vibbard (D4), Vichy (J6), Victoria (L6), Vienna (J6), Villa Ridge (L6), Viola (E9), Visto (E7), Waco (C8), Wakenda (F4), Waldron (C4), Walker (D7), Wallace (C3), Walnut Grove (E8), Wappello (M9), Warren (J3), Warrensburg (E5), Warrington (K5), Warsaw (F6), Washburn (E9), Washington (K5), Watson (A2), Waverly (E4), Wayland (J2), Waynesville (H7), Weatherby (D3), Weaubleau (F7), Webb City (C8), Webster Groves (M5), Wellington (E4), Wellston (M5), Wellsville (K4), Wentworth (D9), Wentzville (L5), Westco (K7), Westbalton (M5), Westboro (B1), West Fork (K7), West Line (C5), Weston (C4), Westphalia (H6), Westplains (J9), Westville (G3), Wheatland (F7), Wheaton (E9), Wheeling (F3), Whiteoak (N10), Whiteside (L4), Whitesville (C2), Whitewater (N8), Whitham (F3), Whiting (O9), Wilby (M2), Wilcox (C9), Willard (F8), Williamsburg (J5), Williamstown (J2), Williamsville (M9), Willmuthville (H2), Willow Springs (H8), Wilton (H5), Winchester (J2), Windom (M5), Windsor (E5), Winfield (L5), Winigan (G2), Winkler (J7), Winona (K8), Winston (D3), Wittenberg (N7), Woodbridge (G5), Woodland (J6), Worland (C6), Worth (D2), Worthington (G2), Wright City (K5), Wyaconda (J2), Wyatt (O9), Wylie (D9), Yates (G4), Zalma (M8), Zincite (C8).

MONTANA

Table listing Montana locations and their corresponding page numbers, including Albright (F2), Alder (D4), Aldridge (E4), Anaconda (C3), Argo (E3), Arlee (B2), Argonne (F2), Armistead (D5), Augusta (D2), Avon (D3), Bainville (M1), Baldbutte (D3), Ballantine (H4), Bannack (C4), Basin (D3), Bearcreek (G4), Bearmouth (C3), Bellevue (G4), Belknap (E4), Belt (F2), Bernice (D3), Bigfork (C1), Big Sandy (F1), Big Timber (F4), Billings (H4), Blossburg (D3), Bonner (C3), Boulder (D3), Bowler (H4), Bozeman (F4), Bridger (G4), Bristol (C4), Broadview (H3), Browning (C1), Butte (D4), Cameron (E4), Canyon Ferry (E3), Carroll (C3), Cascade (E2), Caspary (D3), Castle (F3), Centerville (D4), Chestnut (E4), Chinook (G1), Chouteau (D2), Clancy (E3), Coalville (G4), Columbia Falls (C1), Columbus (G4), Conrad (E1), Cooke (E4), Corbin (D3), Craig (D2), Crow Agency (J4), Culbertson (M1), Cut Bank (D1), Dagmar (M1), Dayton (B2), Deborgia (A2), Deer Lodge (D3), Dillon (D4), Divide (D4), Dodson (H1), Drummond (D3), Dupuyer (D1), East Helena (E3), Eddy (A2), Ekalaka (M4), Electric (F4), Elliston (D3), Eureka (B1), Euroview (M2), Fallon (L3), Family (D1), Forsyth (K3), Fort Benton (F2), Fort Keogh (L3), Fort Maginnis (G2), Fort Shaw (E2), Frenchtown (B3), Fromberg (F4), Gardiner (H4), Garneil (G3), Garnet (C3), Garrison (D3), Gateway (B1), Gilt Edge (G2), Glasgow (K1), Glendive (M2), Gould (D3), Granite (C3), Grant (C4), Grantsdale (B3), Great Falls (E2), Gregson (D4), Hamilton (B3), Hardin (J4), Harlem (H1), Harlowton (G3), Harrison (E4), Hassel (E3), Havre (G1), Hays (H1), Henderson (A2), Heron (A1), Highwood (F2), Hinsdale (K1), Hobson (G2), Hoffman (F4), Hogan (D2), Huntley (H4), Hylent (A2), Iron Mountain (A2), Ismay (M3), Jardine (F4), Jennings (A1), Jessup (B1), Jocko (B2), Joliet (G4), Judith Gap (G3), Junction (J3), Kalispell (B1), Kendall (G2), Lame Deer (K4), Laurel (H4), Laurin (D4), Lavina (G3), Lewistown (G2), Libby (A1), Lima (D5), Livingston (F4), Logan (E4), Lothrop (B3), Malden (G2), Malta (J1), Mammoth (D4), Manhattan (E4), Marysville (D3), Meaderville (D3), Meadow Creek (E4), Melrose (J4), Melstone (D3), Miles City (L3), Missoula (C3), Monarch (F2), Mondak (M1), Moore (G2), Musselshell (J3), Neihart (F3), New Chicago (C3), Oldham (E1), Paradise (B2), Park City (H4), Phillipsburg (C3), Plains (B2), Polson (B2), Pony (E4), Poplar (L1), Radersburg (E3), Rancher (J3), Red Lodge (G4), Riedel (G1), Rimini (D3), Rocker (D4), Rosebud (K3), Roundup (H3), Ruby (D4), Saco (J1), Saint Peter (D2), Saint Regis (A2), Salt Lake (A2), Sandcoulee (E2), Shannon (E3), Sheridan (D4), Shelby (E1), Sherridan (D4), Shirley (L3), Sidney (M2), Silesia (H4), Silverbow (D4), Smelter (E2), Snowshoe (A1), Somers (B1), Stanger (B4), Stevensville (C3), Stockert (E2), Storrs (F4), Sun River (E2), Superior (B2), Sweetgrass (D1), Taft (A2), Terry (L3), Thompson (A2), Thompson Falls (A2), Three Forks (E4), Toston (E3), Townsend (E3), Trident (E4), Troy (A1), Twin Bridges (D4), Twodot (F3), Victor (B3), Virginia City (E4), Walkerville (D3), Warmsprings (D3), Washoe (G4), Whitefish (B1), Whitehall (E4), White Sulphur Springs (F3), Wibaux (M3), Wickes (D3), Willow Creek (E4), Windham (F2), Winston (E3), Wisdom (C4), Wortman (H2), Swanton (O7), Syracuse (O6), Table Rock (Q7), Talmage (R6), Tamora (O6), Tarnon (N4), Taylor (K4), Tecumseh (Q7), Tekamah (Q4), Thayer (O6), Thedford (G4), Thurston (F3), Tilden (N3), Tobias (O7), Trenton (F7), Trumbull (M6), Tryon (G4), Uehling (Q4), Ulysses (O5), Unadilla (Q6), Union (R6), University Place (P6), Upland (L7), Utica (O6), Valentine (G2), Valley (Q5), Valparaiso (P5), Verdel (M2), Verdigris (N2), Verdon (R7), Vesta (Q7), Virginia (Q7), Vibash (Q6), Waco (O6), Waboo (P5), Wakefield (P3), Wallace (F6), Waltham (Q3), Warnerville (N4), Washington (Q5), Waterbury (P3), Waterloo (Q5), Wauneta (F7), Wausa (N2), Waverly (P6), Wayne (O3), Weeping Water (Q6), Wellfleet (G6), Western (O7), West Lincoln (P6), Weston (P5), Westpoint (F4), Wilber (O7), Wilcox (K7), Wilsonville (H7), Winniebag (P3), Winnetoan (M2), Winside (O3), Wisner (P4), Wolbach (M5), Wood Lake (H2), Wood River (L6), Wymore (P7), Wynot (O2), York (M6), Yutan (Q5).

NEBRASKA

Table listing Nebraska locations and their corresponding page numbers, including Abie (P5), Adams (P7), Ainsworth (J2), Albion (M4), Alda (L6), Alexandria (O7), Allen (P3), Alliance (C3), Alma (K7), Alvo (Q6), Amherst (K6), Anoka (L2), Anselmo (J4), Anselmy (K5), Arapahoe (J7), Arcadia (K5), Arlington (Q5), Armour (O7), Arnold (H5), Ashland (Q5), Ashton (L5), Asylum (P6), Atkinson (L2), Atlanta (J7), Auburn (R7), Aurora (M6), Avoca (Q6), Artell (K7), Ayr (M7), Bancroft (P3), Barada (R7), Barnston (P7), Bartlett (L4), Bartley (H7), Bassett (K2), Battle Creek (N4), Bayard (B4), Bazile Mills (N2), Beatrice (P7), Beaver City (J7), Beaver Crossing (O6), Bee (O5), Beemer (P4), Belden (O3), Belgrade (M5), Bellevue (R5), Bellwood (O5), Belvidere (N7), Benedict (N6), Benkelman (F7), Bennet (P6), Bennington (Q5), Benson (Q5), Berlin (Q6), Bertrand (J6), Berwyn (J5), Bethany (P6), Big Springs (D5), Bladen (L7), Blair (Q4), Bloomfield (N2), Bloomington (K7), Blue Hill (M7), Blue Springs (P7), Boelus (L5), Bostwick (M7), Bradshaw (N6), Brady (H5), Brainerd (O5), Brewster (J4), Bridgeport (B4), Bristol (L2), Brock (R7), Broken Bow (J5), Brownville (R7), Brule (E5), Bruning (N7), Bruno (P5), Brunswick (M3), Burchard (Q7), Bursley (M6), Burr (Q6), Burton (J2), Burwell (K4), Burke (L2), Byron (N7), Cairo (L5), Callaway (J5), Cambridge (H7), Campbell (L7), Canby (N7), Canfield (M5), Chappell (D5), Cheney (P6), Chester (N7), Clark (N5), Clarkson (O4), Clanton (P7), Clay Center (N6), Clearwater (M3), Cody (F2), Coleridge (O2), Colledgeview (P6), Colon (P5), Columbus (O5), Constock (K4), Concord (P3), Cook (Q7), Cordova (O6), Cornlea (N4), Cortland (P7), Cotesfield (L5), Cowles (M7), Crab Orchard (P7), Craig (Q4), Crawford (B2), Creighton (N3), Creston (O4), Crete (O6), Crofton (N2), Crookston (G2), Culbertson (G7), Curtis (G6), Dakota (P3), Dalton (C5), Danbury (H7), Dannebrog (M5), Darr (J6), Davenport (N7), Davey (P6), David City (O5), Dawson (R7), Daykin (O7), Decatur (Q4), Deshler (N7), Dewesse (M7), DeWitt (P7), Diller (P7), Dixon (P3), Dodge (P4), Doniphan (M6), Dorchester (O6), Douglas (Q6), Du Bois (O7), Dunbar (Q6), Duncan (N5), Dundee (RS), Dunning (H4), Dwight (O5), Eagle (Q6), Eddyville (J5), Edgar (N7), Edson (J7), Elba (L5), Elgin (M4), Elk Creek (Q7), Elkhorn (Q5), Elm Creek (K6), Elmwood (Q6), Elsie (F6), Elwood (J6), Emerson (P3), Endicott (O7), Ericson (L4), Eustis (H6), Ewing (M3), Exeter (O6), Fairbury (O7), Fairfield (M7), Fairmont (N6), Falls City (R7), Farnam (H6), Farwell (L5), Filley (P7), Firth (P6), Florence (Q5), Fontanelle (Q4), Fort Calhoun (Q5), Fort Crook (R5), Fort Robinson (A2), Foster (N3), Franklin (L7), Fremont (P5), Friend (O6), Fullerton (N5), Gandy (H5), Garrison (O5), Geneva (N6), Genoa (N5), Gering (A4), Germantown (P6), Gibbon (L6), Gilead (O7), Giltner (M6), Gladstone (O7), Glendive (M6), Goehner (O6), Gordon (D2), Gothenburg (H6), Grafton (N6), Grand Island (M6), Grant (E6), Greenway (O6), Gresham (O5), Gresham (O5), Guffey (O5), Gross (L2), Guide Rock (M7), Hadar (N7), Haigler (E3), Hallam (P6), Hampton (N6), Harbine (P7), Harney (N7), Harrisburg (A4), Harrison (A2), Hartington (O2), Hartvard (M6), Hastings (M6), Havlock (P6), Hayes Center (F6), Hay Springs (C2), Heartwell (L6), Hebron (N7), Hemingford (B3), Henderson (N6), Herndon (J7), Hermand (Q4), Hershey (G5), Hickman (P6), Hildreth (K7), Holbrook (H7), Holdrege (K7), Holmesville (P7), Holstein (L7), Homer (P3), Hooper (P4), Hordville (N5), Hoskins (O3), Howe (R7), Howell (O4), Hubbard (P3), Hubbell (N7), Humboldt (R7), Humphrey (O4), Huntington (M6), Huntley (K7), Hyannis (E4), Imperial (E6), Indiana (L7), Inland (M6), Inman (L3), Ithaca (P5), Jackson (P3), Jansen (O7), Johnson (R7), Johnston (J2), Julian (R6), Juniata (L6), Kearney (L6), Kenasaw (L6), Kennard (Q5), Kilgore (G2), Kimball (A5), Kimbham (P7), Laurel (O3), Lawrence (M7), Lebanon (H7), Leigh (O4), Leshara (Q5), Lewellen (D5), Lexington (Q7), Lewiston (J6), Liberty (P7), LINCOLN (P6), Lindsay (N4), Linwood (P5), Litchfield (K5), Lodgepole (CS), Long Pine (J2), Loomis (M7), Loretto (N4), Lorton (Q6), Louisville (Q6), Loup City (K5), Lusk (N6), Lynch (M2), Lyons (Q4), McCook (G7), McCook Junction (N6), McLean (N3), Madison (N4), Madrid (E6), Magner (N3), Malcolm (P6), Malmo (P5), Manly (Q6), Marion (G7), Marquette (N6), Martinsburg (P2), Mason City (K5), Maxwell (H5), Maywood (G6), Mead (Q5), Meadow Grove (N3), Memphis (Q5), Merna (J5), Merriman (E2), Millard (O6), Millard (Q5), Miller (K6), Milligan (O7), Minatara (B4), Minden (L7), Mitchell (A4), Monroe (N5), Moorfield (H6), Morrill (A4), Morse Bluff (P5), Mount Clare (M7), Mullen (F3), Murdock (Q6), Murray (R6), Naper (K2), Naponee (K7), Nebraska City (R6), Nebawka (Q6), Neligh (M3), Nelson (M7), Neloma (R7), Newcastle (P2), Newman Grove (N4), Newport (K2), Nickerson (P4), Niobrara (N2), Nora (M7), Norfolk (N3), Norman (L7), North Bend (P4), North Loup (L5), North Platte (G5), Oak (N7), Oakdale (N3), Oakland (Q4), Oconto (J5), Octavia (O5), Odell (P7), Ogallala (E5), Obiowa (O7), Omaha (R5), O'Neill (L3), Ong (N7), Orchard (M3), Ord (L4), Orleans (K7), Osceola (N5), Oshkosh (D5), Osmond (N3), Overton (J6), Oxford (J7), Page (M3), Palisade (F7), Palmer (M5), Palmyra (Q6), Panama (P6), Papillion (Q5), Pauline (M7), Pawnee City (Q7), Paxton (F5), Pender (P3), Peru (R7), Petersburg (N4), Phillips (M6), Pickrell (P7), Pierce (N3), Pilger (O3), Plainview (N3), Platte Center (N4), Plattsmouth (Q6), Pleasant Dale (P6), Pleasant Hill (O6), Pleasanton (K5), Plymouth (O7), Polk (N5), Ponca (P2), Poole (K6), Potter (B5), Powell (O7), Prague (P5), Preston (R7), Primrose (M4), Prosser (L6), Ragan (K7), Ralston (Q5), Randolph (O3), Ravenna (L5), Raymond (P6), Red Cloud (L7), Republican City (K7), Reynolds (O7), Richland (O5), Rising City (O5), Riverton (L7), Roca (P6), Rockville (L5), Rogers (P5), Rosalia (Q3), Roseland (L7), Royal (M3), Rulo (S7), Rushville (D2), Ruskin (N7), Saint Edward (N4), Saint Helena (O2), Saint Paul (M5), Salem (R7), Sargent (K4), Saroville (N6), Schuyler (O5), Scotia (L5), Scottsbluff (A4), Scribner (P4), Seneca (G3), Seward (O6), Shelby (O5), Shelton (L6), Shickley (N7), Sholes (O3), Shubert (R7), Sidney (C5), Silver Creek (N5), Sioux (Q3), Stamford (Q7), Stanton (O4), Staplehurst (O5), Steele City (P7), Steinauer (O7), Stella (R7), Sterling (Q7), Stockham (N6), Stockville (H6), Strawn (N6), Stratton (F7), Stromsburg (N5), Stuart (K2), Sumner (J6), Superior (N7), Surprise (O5), Sutherland (F5), Sutton (N6), Swanton (O7), Syracuse (O6), Table Rock (Q7), Talmage (R6), Tamora (O6), Tarnon (N4), Taylor (K4), Tecumseh (Q7), Tekamah (Q4), Thayer (O6), Thedford (G4), Thurston (F3), Tilden (N3), Tobias (O7), Trenton (F7), Trumbull (M6), Tryon (G4), Uehling (Q4), Ulysses (O5), Unadilla (Q6), Union (R6), University Place (P6), Upland (L7), Utica (O6), Valentine (G2), Valley (Q5), Valparaiso (P5), Verdel (M2), Verdigris (N2), Verdon (R7), Vesta (Q7), Virginia (Q7), Vibash (Q6), Waco (O6), Waboo (P5), Wakefield (P3), Wallace (F6), Waltham (Q3), Warnerville (N4), Washington (Q5), Waterbury (P3), Waterloo (Q5), Wauneta (F7), Wausa (N2), Waverly (P6), Wayne (O3), Weeping Water (Q6), Wellfleet (G6), Western (O7), West Lincoln (P6), Weston (P5), Westpoint (F4), Wilber (O7), Wilcox (K7), Wilsonville (H7), Winniebag (P3), Winnetoan (M2), Winside (O3), Wisner (P4), Wolbach (M5), Wood Lake (H2), Wood River (L6), Wymore (P7), Wynot (O2), York (M6), Yutan (Q5).

NEVADA

Atlanta, (G4)..... 200
Austin, (D3)..... 1,300
Bainock, (E2)..... 250
Battle Mountain, (D2)..... 400
Bauvard, (G1)..... 200
Beatty, (E6)..... 200
Blackhorse, (G3)..... 300
Blair, (D5)..... 500
Buckskin, (B4)..... 200
Bunkerville, (G6)..... 100
Cabeote, (G5)..... 500
Carlin, (E2)..... 420

CARSON CITY, (B3)..... 2,466
Cherry Creek, (G3) 350
Columbia, (D5)..... 1,000
Contact, (G1)..... 150
Cortez, (E2)..... 110
Crescent, (F7)..... 100
Currie, (G2)..... 100
Dayton, (B3)..... 580
Delamar, (G5)..... 700
Dutchcreek, (C4)..... 200
East Ely, (G3)..... 1,500
Edgemont, (E1)..... 100

Elko, (F2)..... 1,677
Ely, (G3)..... 2,055
Empire, (B3)..... 300
Eureka, (F3)..... 1,800
Fallon, (C3)..... 741
Farrell, (D2)..... 120
Franktown, (B3)..... 200
Gardnerville, (B4)..... 210
Genoa, (B3)..... 440
Gillis, (C4)..... 100
Glenbrook, (A3)..... 230
Golconda, (D2)..... 800
Goldbug, (C2)..... 150

Goldfield, (D5)..... 4,838
Gold Hill, (B3)..... 2,100
Goodsprings, (F7)..... 100
Granite, (C4)..... 200
Hamilton, (F3)..... 300
Hawthorne, (C4)..... 1,000
Hiko, (F5)..... 100
Hill Top, (E2)..... 100
Horn Silver, (D5)..... 1,000
Imlay, (C2)..... 250
Jumbo, (B3)..... 100
Las Vegas, (G6)..... 1,500
Lee, (F2)..... 150

Lida, (D5)..... 230
Lovelocks, (C2)..... 1,000
Lucky Boy, (C4)..... 800
McGill, (G5)..... 2,200
Manhattan, (E4)..... 750
Marble, (C4)..... 100
Masou, (B3)..... 150
Mazuma, (C2)..... 200
Mizpa, (G3)..... 150
Morning Star, (B4)..... 100
Mountain City, (F1)..... 130

Nelson, (G7)..... 250
Owyhee, (E1)..... 500
Palisade, (E2)..... 150
Panaca, (G5)..... 350
Paradise Valley, (D1)..... 600
Pinegrove, (B4)..... 200
Pioche, (G5)..... 1,000
Pioneer, (E4)..... 1,200
Prospect, (E3)..... 150
Pyramid, (B2)..... 150
Ramsey, (B3)..... 120
Rawhide, (C4)..... 3,100

Reipetown, (F3)..... 100
Reno, (B3)..... 10,867
Rhyolite, (D6)..... 800
Round Mountain, (E4)..... 600
Ruby Valley, (F2)..... 100
Schurz, (C4)..... 600
Searchlight, (G7)..... 387
Seven Troughs, (C2)..... 100
Sheridan, (B4)..... 110
Silver City, (B3)..... 350
Sparks, (B3)..... 2,500

Stillwater, (C3)..... 220
Sweetwater, (B4)..... 150
Tonopah, (D4)..... 3,900
Tuscarora, (E1)..... 300
Unionville, (C2)..... 100
Verdi, (A3)..... 500
Vernon, (C2)..... 150
Virginia City, (B3)..... 2,244
Wadsworth, (B3)..... 800
Wells, (F1)..... 250
Whiterock, (E1)..... 150
Wionemucca, (D2)..... 1,786
Yerington, (B4)..... 682

NEW HAMPSHIRE

= POPULATION OF TOWNSHIP

Acworth, (E11)..... 536
Alexandria, (G9)..... 571
Allenstown, (J11) 1,457
Alstead, (E11)..... 711
Alstead Center, (E11)..... 100
Alton, (J10)..... 1,348
Alton Bay, (J10)..... 300
Amherst, (H12)..... 1,060
Andover, (G10)..... 1,201
Aotrim, (G11)..... 1,235
Apthorp, (G6)..... 100
Ashland, (H9)..... 1,412
Ashuelot, (E12)..... 380
Atkinson, (K12)..... 440
Atkinson Depot, (K12)..... 100
Auburn, (J11)..... 637
Bank Village, (G12) 100
Barnstead, (J10)..... 1,081
Barrington, (K11) 900
Bartlett, (J7)..... 1,197
Bath, (G7)..... 978
Bedford, (H12)..... 1,110
Belmont, (J10)..... 1,390
Bennington, (G11) 690
Benton, (G7)..... 219
Berlin, (K6)..... 11,780
Berlin Mills, (K12) 1,200
Bethlehem, (H6)..... 1,201
Boscawen, (H10) 1,240
How, (H11)..... 676
Bow Mills, (H11)..... 300
Bradford, (F10)..... 695
Brentwood, (K12) 759
Bridgewater, (H9) 187
Bristol, (G9)..... 1,478
Brookfield, (K9)..... 247
Brookline, (H13)..... 501
Campton, (H8)..... 845
Canaan, (G9)..... 1,408
Canaan Center, (F9) 150
Canaan Street, (G9) 150
Candia, (J11)..... 993
Candia Village, (J11) 150
Canobie Lake, (K12)..... 100
Canterbury, (H10) 680
Carroll, (H6)..... 569
Center Barnstead, (J10)..... 500
Center Conway, (K8)..... 200
Center Effingham, (K9)..... 100
Center Harbor, (J9) 420
Center Sandwich, (H8)..... 350
Center Strafford, (K10)..... 250
Center Tuftonboro, (K9)..... 180

Charlestown, (E11)..... 1,496
Chatham, (K7)..... 209
Chesham, (F12)..... 110
Chester, (J12)..... 818
Chestherfield, (E12) 770
Chichester, (J11)..... 606
Chocorua, (K8)..... 100
Claremont, (E10) 7,529
Claremont Junction, (E10)..... 100
Clarksville, (J3)..... 271
Clarkbrook, (J4)..... 1,905
Columbia, (H4)..... 619
CONCORD, (H11)..... 21,497
Coutocook, (H11) 940
Conway, (K8)..... 3,413
Coos, (H5)..... 425
Cornish, (E10)..... 1,005
Cornish Flat, (E10) 450
Crawford House, (J7)..... 130
Croydon, (F10)..... 324
Croydon Flat, (F10) 100
Crystal, (J5)..... 100
Dalton, (H6)..... 475
Daubury, (G9)..... 592
Daoville, (K12)..... 517
Davisville, (G11)..... 200
Deerfield, (K11)..... 917
Deerfield Center, (K11)..... 350
Deering, (G11)..... 353
Derry, (J12)..... 5,123
Dorchester, (F9)..... 241
Dover, (L11)..... 13,247
Dover Point, (L11) 500
Drewsville, (E11)..... 125
Dublin, (F12)..... 571
Dummer, (J5)..... 292
Dumbarton, (H11) 513
Durham, (L11)..... 823
East Alstead, (E11) 125
East Andover, (G10) 350
E. Harrington, (K11) 550
East Candia, (J11) 450
E. Canterbury, (J10) 100
East Concord, (J11) 500
East Conway, (K8) 100
East Deering, (G11) 190
East Derry, (J12)..... 590
East Grafton, (G9) 280
E. Hampstead, (K12) 100
East Haverhill, (G7) 100
East Jaffrey, (F12) 1,700
E. Kingston, (F12) 413
E. Lempster, (F11) 150
Easton, (G7)..... 226
E. Pembroke, (J11) 100
East Rindge, (G12) 135
E. Rochester, (L10) 1,200
East Sullivan, (F12) 200
East Swanzey, (F12) 300
E. Wakefield, (K9) 150
E. Washington, (F11) 100
East Wear, (H11) 340
East Wolfboro, (K9) 150
Eatons Center, (K8) 150
Effingham, (K9)..... 558
Effingham Falls, (K8)..... 150
Elkins, (G10)..... 170
Elmwood, (G12)..... 100
Enfield, (F9)..... 1,448
Enfield Center, (F9) 400
Epping, (K11)..... 1,649
Epsom, (J11)..... 725
Errol, (K4)..... 211
Etna, (F9)..... 150
Exeter, (L12)..... 4,897
Fabyan House, (H7) 250
Farmington, (K10)..... 2,621
Fitzwilliam, (F12) 1,148
Fitzwilliam Depot, (F12)..... 500
Franconia, (H7)..... 604
Franklin, (H10)..... 6,132
Freedom, (K8)..... 542
Fremont, (K11)..... 622
Gaza, (H9)..... 100
Georges Mills, (F10) 200
Gerrish, (H10)..... 100
Gilford, (J9)..... 744
Gilmanton, (J10)..... 968
Gilmanton Iron Works, (J10)..... 500
Gilsou, (E11)..... 470
Glen, (K7)..... 150
Goff's Falls, (H12)..... 200
Goffstown, (J11) 2,579
Gosh, (L10)..... 460
Gorham, (K6)..... 2,155
Goshen, (F10)..... 329
Gossville, (J11)..... 260
Grafton, (G9)..... 641
Grafton Center, (F9)..... 100
Grantham, (F10)..... 286
Grasmere, (H11)..... 400
Greenfield, (G12)..... 574
Greenland, (L11)..... 575
Greenland Depot, (L11)..... 100
Greenville, (G12) 1,374
Groton, (G9)..... 319
Groveton, (J5)..... 1,500
Guild, (F10)..... 100
Hampstead, (K12) 796
Hampton, (L12)..... 1,215
Hampton Falls, (L12)..... 552

Hancock, (F12)..... 642
Hanover, (E9)..... 2,075
Harrisville, (F12)..... 623
Haverhill, (F7)..... 3,498
Hebron, (G9)..... 213
Henniker, (G11)..... 1,395
Hill, (H9)..... 556
Hillsboro, (G11)..... 2,168
Hillsboro Lower Village, (G11)..... 280
Hillsboro Upper Village, (F11)..... 100
Hinsdale, (E12)..... 1,673
Holderness, (H9)..... 652
Hollis, (J13)..... 935
Hookset, (H11)..... 1,528
Hopkinton, (H11) 1,578
Horns Mills, (L9)..... 100
Hudson, (J12)..... 1,344
Hudson Center, (J12)..... 270
Intervale, (K7)..... 200
Jackson, (K7)..... 452
Jaffrey, (F12)..... 1,895
Jefferson, (J6)..... 1,061
Jefferson Highland, (J6)..... 150
Keasarge, (K7)..... 130
Keene, (E12)..... 10,068
Kensington, (L12) 417
Kingston, (K12)..... 1,015
Laconia, (J9)..... 10,183
Lakeport, (J9)..... 500
Lancaster, (H6)..... 3,054
Landaff, (G7)..... 526
Langdon, (E11)..... 340
Leavitts Hill, (J11) 100
Lebanon, (E9)..... 5,718
Lee, (L11)..... 479
Lempster, (F11)..... 383
Lincoln, (H7)..... 1,278
Lisbon, (G7)..... 2,460
Little Boars Head, (M12)..... 100
Littleton, (G6)..... 3,059
Livermore, (J7)..... 64
Lochmere, (H10)..... 150
Lockeheaden, (F9)..... 100
Londonderry, (J12)..... 1,533
Long Island, (J9)..... 150
Loudon, (J10)..... 838
Lower Bartlett, (K7)..... 150
Lyman, (G6)..... 374
Lyme, (F8)..... 1,007
Lyme Center, (F8) 150
Lyndeboro, (H12) 660
Madbury, (L11)..... 331
Madison, (K8)..... 507
Manchester, (J11) 70,063
Marlboro, (F12)..... 1,478

Marlboro Depot, (F12)..... 300
Marlow, (F11)..... 425
Mascoma, (F9)..... 100
Mason, (G13)..... 325
Meadows, (J6)..... 180
Melvin Village, (J9) 295
Meredith, (H9)..... 1,638
Meredith Center, (H9)..... 150
Meriden, (F9)..... 500
Merrimack, (H12) 1,039
Middleton, (K10)..... 291
Milao, (K5)..... 924
Milford, (H12)..... 939
Mill Village, (F10) 100
Milton, (K10)..... 1,542
Milton Mills, (L9) 300
Monroe, (F6)..... 429
Montcalm, (F9)..... 100
Mont Vernon, (H12) 413
Moultonboro, (J9) 783
Moultonville, (K9) 300
Mountainview, (K9) 300
Munsonville, (F11) 100
Nashua, (H12)..... 26,005
Nelson, (F12)..... 231
New Boston, (H12) 982
Newbury, (F10)..... 402
New Castle, (M11) 624
New Durham, (K10) 523
Newfields, (L11)..... 503
New Hampton, (H9) 821
Newington, (L11)..... 296
New Ipswich, (G13) 927
New London, (F10) 805
New Market, (L11)..... 3,348
Newport, (F10)..... 3,765
Newton, (K12)..... 962
Newton Junc., (K12) 180
N. Branch, (G11)..... 100
North Charlestown, (E10)..... 240
N. Chichester, (J11) 360
N. Cooway, (K7)..... 1,500
N. Danville, (K12) 150
Northfield, (H10) 1,474
North Groton, (G8) 140
N. Hampton, (L12) 786
N. Haverhill, (G7) 440
North Lisbon, (G6) 100
North Monroe, (G6) 110
N. Newport, (E10) 190
North Nottingham, (K11)..... 100
N. Richmond, (E12) 100
N. Rochester, (K10) 100
North Salem, (J12) 400
N. Sanbornton, (H9) 430
N. Sandwich, (J8)..... 100
North Sutton, (G10) 140
Northumberland, (J5)..... 2,184
N. Wakefield, (K9) 150
N. Walpole, (E11) 1,000
North Wear, (G11) 540
Northwood, (K11) 1,059
Northwood Center, (K11)..... 150
Northwood Narrows, (J11)..... 150
Northwood Ridge, (K11)..... 150
N. Woodstock, (H7) 400
Nottingham, (K11) 607
Orford, (F8)..... 799
Orfordville, (F8)..... 210
Ossipee, (K9)..... 1,354
Pattenville, (G6)..... 200
Pelham, (J13)..... 826
Pembroke, (J11)..... 3,062
Penacook, (H10)..... 3,000
Pequaket, (J8)..... 100
Percy, (J5)..... 140
Peterboro, (G12)..... 2,277
Pierce Bridge, (H6) 100
Piermont, (F8)..... 592
Pike, (G7)..... 340
Pittsburg, (J3)..... 624
Pittsfield, (J10)..... 2,222
Plainfield, (E9)..... 987
Plymouth, (K12)..... 1,173
Plymouth, (H9)..... 2,200
Ponemah, (H12)..... 422
Portsmouth, (L11) 11,269
Potter Place, (G10) 300
Pratts, (H12)..... 100
Randolph, (K6)..... 137
Raymond, (K11)..... 1,203
Redstone, (K7)..... 320
Reeds Ferry, (J12) 300
Richmond, (E12)..... 393
Ridge, (G12)..... 706
Rivendale, (H11)..... 100
Riverton, (H6)..... 100
Robys Corner, (G10) 150
Rochester, (K10)..... 8,868
Rockingham, (L11) 100
Rollinsford, (L11) 1,836
Rumney, (G8)..... 850
Rumsey Depot, (G8) 240
Rye, (L11)..... 1,014
Rye Beach, (M12) 500
Rye North Beach, (M11)..... 100
Salem, (K12)..... 2,117
Salem Depot, (J12) 700
Salisbury, (H10)..... 478
Salisbury Heights, (H10)..... 140
Salmon Falls, (L11) 1,700
Sanbornton, (H9)..... 850

Sauntonville, (K9) 500
Sandown, (K12)..... 380
Sandwich, (J8)..... 928
Scot, (H6)..... 125
Seabrook, (L12)..... 1,425
Shelburne, (K6)..... 305
Short Falls, (J11)..... 140
Silver Lake, (K8)..... 300
Smithtown, (L12)..... 100
Snowville, (K8)..... 220
Somersworth, (L10) 6,704
S. Acworth, (E11) 250
S. Barnstead, (J10) 100
S. Barrington, (K11) 100
S. Charlestown, (E11) 100
S. Coarish, (E10)..... 110
S. Danbury, (G10) 120
S. Daoville, (K12) 180
S. Deerfield, (J11)..... 100
S. Effingham, (K9) 100
S. Hampton, (K12) 279
S. Kingston, (K12) 140
South Lee, (K11)..... 200
S. Lyndeboro, (G12) 520
S. Merrimack, (H12) 110
S. Newbury, (F10) 100
S. Sebark, (L12) 100
S. Stoddard, (F11) 100
South Sutton, (G10) 120
S. Tamworth, (J8) 290
South Wear, (G11) 100
S. Wolfboro, (K9)..... 150
Spofford, (E12)..... 260
Springfield, (F9)..... 422
Stark, (J5)..... 448
State Line, (F13)..... 180
Stewartstown, (J4) 1,128
Stoddard, (F11)..... 257
Strafford, (K11)..... 786
Strafford Corner, (K10)..... 100
Strafford, (H5)..... 844
Stratham, (L11)..... 602
Sugar Hill, (G7)..... 380
Sullivan, (F11)..... 266
Sunapee, (F10)..... 1,071
Suncook, (J11)..... 2,700
Surry, (E11)..... 213
Sutton, (G10)..... 698
Swanzy, (E12)..... 1,656
Switzwater, (F7)..... 100
Tampworth, (J8)..... 993
Temple, (G12)..... 284
The Weirs, (J9)..... 550
Thornton, (H8)..... 553
Thorntons Ferry, (H12)..... 130
Tilton, (H10)..... 1,866
Troy, (F12)..... 1,331
Tuftonboro, (K9)..... 612
Twin Mtn., (H6)..... 260
Union, (K10)..... 400
Unity, (F10)..... 504
Wakefield, (K9)..... 1,543
Walpole, (E11)..... 2,668
Warner, (G10)..... 726
Warren, (G8)..... 1,001
Washington, (F11) 360
Water Village, (K9) 130
Weare, (G11)..... 1,325
Webster, (G10)..... 445
Wentworth, (G8)..... 595
West Alton, (J9)..... 100
West Andover, (G10)..... 180
West Brentwood, (K12)..... 200
West Canaan, (H8) 200
West Chesterfield, (E12)..... 260
W. Claremont, (E10) 500
W. Concord, (H11) 1,200
West Epping, (K11) 450
W. Hampstead, (J12) 200
W. Henniker, (G11) 100
West Lebanon, (E9) 500
West Milan, (J5)..... 390
Westmoreland, (E12)..... 758
Westmoreland Depot, (E11)..... 130
West Nottingham, (K11)..... 100
West Ossipee, (K8) 300
W. Peterboro, (G12) 100
Westport, (E12)..... 100
West Rindge, (F12) 260
West Rumsey, (G8) 240
West Rye, (L11)..... 100
W. Salisbury, (G10) 120
W. Springfield, (F10) 200
West Stewartstown, (J4)..... 1,000
W. Swanzey, (E12) 770
W. Thornton, (H8) 360
Westville, (K12)..... 300
West Wilton, (G12) 100
W. Windham, (J12) 100
Whiteface, (J8)..... 100
Whitefield, (H6)..... 1,635
Wilmot, (G10)..... 614
Wilton Flat, (G10) 250
Wilton, (H12)..... 1,490
Winchester, (E12) 2,282
Windham, (J12)..... 656
Windham Depot, (J12)..... 200
Winona, (H9)..... 135
Wolfboro Falls, (J9) 300
Wolfboro, (K9)..... 2,224
Woodman, (K9)..... 100
Woodstock, (H8)..... 1,083
Woodsville, (F7)..... 2,100

NEW JERSEY

1915 STATE CENSUS FIGURES

Absecon, (F9)..... 870
Adelphia, (F6)..... 450
Aldine, (C8)..... 150
Allaire, (G6)..... 100
Allamuchy, (D3)..... 200
Allendale, (G2)..... 1,121
Allenhurst, (H2)..... 203
Alletout, (E6)..... 642
Allenwood, (G6)..... 160
Alliance, (C8)..... 400
Alloway, (H8)..... 600
Almonesson, (C7)..... 200
Alpha, (C4)..... 2,084
Alpine, (H3)..... 533
Ancora, (D8)..... 300
Anderson, (D3)..... 100
Andover, (E3)..... 479
Angeles, (D10)..... 180
Annandale, (D4)..... 370
Anthony, (D4)..... 100
Ardena, (F6)..... 500
Arlington, (G3)..... 6,000
Asbury, (C4)..... 580
Asbury Park, (H6)..... 10,910
Ashland, (D7)..... 320
Atco, (D7)..... 600
Athenia, (G3)..... 410
Atlantic City, (F9)..... 51,667
Atlantic Highlands, (G5)..... 1,771
Atsion, (D8)..... 100
Auburn, (B8)..... 180
Auburn, (C7)..... 3,009
Aurora, (C8)..... 133
Avalon, (E4)..... 100
Avon by the Sea, (H6)..... 707
Bakersville, (E9)..... 150
Baptistown, (D4) 120
Bargaintown, (E9) 100
Barnegat, (G7)..... 850
Barnegat City, (G8) 77
Barnsboro, (C7)..... 200

Barrington, (C7)..... 150
Basking Ridge, (E4) 640
Bayhead, (G6)..... 492
Bayonne, (G4)..... 64,641
Bayville, (G7)..... 200
Beachhaven, (D3) 434
Bechtystown, (G8) 170
Bedminster, (E4)..... 130
Beersville, (E2)..... 250
Beesleys Point, (E9) 175
Belford, (G5)..... 250
Belle Plain, (D9)..... 100
Belleville, (G3)..... 11,996
Belmar, (G6)..... 2,553
Belvidere, (G3)..... 1,823
Bergenfield, (H3) 2,924
Berkeley Heights, (F4)..... 300
Berlin, (D7)..... 800
Bernardsville, (E4) 1,000
Beverly, (D6)..... 2,450
Billingsport Road, (B7)..... 100
Birmingham, (E7) 220
Birlwe, (C10)..... 220
Blackwells Mills, (E5)..... 230
Blackwood, (C7)..... 600
Blairtown, (D3)..... 800
Bloomfield, (G3)..... 17,306
Bloomfield, (F3)..... 340
Bloomsbury, (C4)..... 630
Blue Anchor, (D8) 250
Bogota, (G3)..... 2,344
Boonton, (F3)..... 5,207
Bordentown, (E6) 4,095
Bound Brook, (E4) 5,152
Braddock, (D8)..... 200
Bradvelt, (F5)..... 150
Bradley Beach, (H6)..... 2,236
Branchville, (D2)..... 620
Bridgeboro, (D6)..... 280
Bridgeport, (F8)..... 280
Bridgeport, (H7)..... 640
Bridgeton, (B9)..... 13,611
Bridgeville, (C3)..... 100
Brielle, (G6)..... 330
Brightaine, (F9)..... 20
Broadway, (C4)..... 200
Brookdale, (G3)..... 250
Brookside, (E3)..... 150
Brown Mills, (E7)..... 300
Brownstown, (E5)..... 200
Budd Lake, (E3)..... 120
Buddtown, (E7)..... 250
Buena, (D8)..... 150
Burling, (D10)..... 150
Burlington, (D6)..... 9,044
Burnsville, (G6)..... 200
Butler, (F3)..... 2,534
Buttzville, (D3)..... 330
Caldwell, (F3)..... 3,409
Calton, (D4)..... 300
Camden, (C7)..... 102,215
Campgaw, (D1)..... 190
Canton, (B9)..... 190
Cape May, (D1)..... 2,513
Cape May Court House, (D10)..... 800
Cape May Point, (C11)..... 170
Carlstadt, (G3)..... 4,137
Carloton Hill, (G3)..... 100
Carmel, (C9)..... 750
Carpentersville, (C4) 210
Carters, (G4)..... 3,500
Cassville, (F4)..... 220
Cedar Brook, (D8) 400
Cedar Grove, (F3)..... 670
Cedar Lake, (D8)..... 110
Cedar Run, (F8)..... 200
Cedarville, (C9)..... 1,500
Centerton, (D7)..... 100
Centerton, (C8)..... 130
Changewater, (D4) 210
Chapel Hill, (G5)..... 200
Charlotteburg, (F2) 100
Chatham, (F4)..... 2,207
Chatsworth, (E7)..... 150
Cheesquake, (G5) 200
Chesilhurst, (D8)..... 314

Chester, (E3)..... 1,100
Chesterfield, (E6)..... 140
Chews, (C7)..... 450
Chrome, (G4)..... 150
Cinnaminson, (D7) 150
Clarksboro, (B7)..... 200
Clarksburg, (F6)..... 250
Clayton, (C8)..... 1,729
Clementon, (C7)..... 100
Clermont, (D10)..... 100
Cliffside, (H3)..... 4,778
Cliffwood, (G5)..... 150
Clinton, (D4)..... 841
Closter, (H3)..... 1,735
Cokesbury, (D4)..... 100
Cold Spring, (D11) 150
Colesville, (E1)..... 600
Collingswood, (C7) 600
Colonia, (F4)..... 100
Colts Neck, (G5)..... 150
Columbia, (C3)..... 200
Columbus, (E6)..... 590
Cookstown, (E6)..... 180
Copperhill, (D5)..... 100
Cortlandt, (H3)..... 750
Coytesville, (E5)..... 800
Conford, (F4)..... 2,000
Cranridge, (E9)..... 100
Creskill, (H3)..... 992
Cross Keys, (C8)..... 250
Crosswicks, (E6)..... 400
Croton, (D4)..... 150
Daretown, (B8)..... 150
Dayton, (F5)..... 390
Deal, (G6)..... 227
Deal Beach, (H6)..... 180
Deerfield Street, (C8) 100
Delair, (C7)..... 230
Delanco, (D6)..... 750
Delawanna, (G3)..... 710
Delaware, (C3)..... 440
Delford, (G3)..... 1,244
Delmont, (D10)..... 175
Demarest, (H3)..... 588
Dennsville, (D10)..... 300
Denville, (F3)..... 630
Dias Creek, (D10) 250
Dividing Creek, (C9) 500
Dorchester, (D9)..... 100
Dorothy, (D9)..... 200
Dover, (E3)..... 8,971
Drakestown, (D3) 200
Dumont, (G3)..... 2,278
Dunelm Lake, (G3) 400
Dunellen, (F4)..... 2,877
Dutch Neck, (E5)..... 100
Easton, (D10)..... 100
East Millstone, (E4) 356
East Newark, (G4) 2,873
East Nutley, (G4)..... 400
East Orange, (F4) 40,961
E. Rutherford, (G3) 5,756
Eatontown, (G5)..... 1,200
Edgewater, (H3)..... 3,150
Edgewater Park, (D6)..... 200
Egg Harbor City, (E8)..... 2,416
Elberon, (H5)..... 100
Eldora, (D10)..... 100
Elizabeth, (G4)..... 82,036
Ellisburg, (C7)..... 110
Ellisdale, (E6)..... 275
Elm, (D8)..... 230
Elmer, (C8)..... 1,143
Elwood, (E8)..... 150
Emerson, (G3)..... 906
Englewood, (H3) 11,071
Eaglewood Cliffs, (H3)..... 532
English Creek, (E9) 300
Englishtown, (F5) 605
Erma, (D11)..... 230
Essex Falls, (F3)..... 538
Esteville, (D9)..... 100
Everett, (G5)..... 100
Everittstown, (C4) 150
Evesboro, (D7)..... 100
Ewan, (C8)..... 250
Ewingville, (E5)..... 250
Fairfield, (F3)..... 150

Fair Haven, (G5)..... 1,490
Fair Lawn, (G3)..... 120
Fairmount, (D4)..... 100
Fairton, (C9)..... 100
Fairview, (G3)..... 4,016
Fanwood, (F4)..... 600
Far Hills, (E4)..... 300
Farmingdale, (G6) 483
Fieldsboro, (E6)..... 510
Finerle, (E4)..... 100
Finesville, (C4)..... 100
Fishing Creek, (D10) 180
Flanders, (E3)..... 510
Flatbrookville, (D2) 100
Flemington, (D4)..... 2,635
Florence, (D6)..... 1,800
Florham Park, (F3) 970
Folsom, (D8)..... 266
Fords, (F4)..... 750
Forked River, (G3) 500
Fort Lee, (H7)..... 5,288
Franklin, (E2)..... 3,262
Franklin Park, (E5) 300
Franklinville, (C8) 300
Freehold, (G5)..... 3,622
Frenchtown, (C4)..... 983
Freney, (G5)..... 200
Garfield, (G3)..... 15,455
Garwood, (F4)..... 1,612
Georgetown, (E6)..... 100
German Valley, (D3) 580
Gibbsboro, (D7)..... 300
Gibbstown, (B7)..... 200
Glassboro, (C8)..... 2,100
Glendola, (G6)..... 250
Glen Gardner, (D4) 600
Glen Ridge, (G3)..... 4,153
Glen Rock, (G3)..... 1,689
Glenwood, (E1)..... 300
Gloucester City, (C7)..... 10,554
Goshen, (D10)..... 350
Grantwood, (H3)..... 1,600
Grassy Sound, (D10)..... 100
Great Meadows, (D3)..... 150
Green Creek, (D10) 200
Green Pond, (F2)..... 100
Green Village, (F4) 170
Greenwich, (B9)..... 1,000
Greloch, (C7)..... 330
Griggstown, (E5

Table listing various locations in New Jersey, New Mexico, and New York with their corresponding population figures. Includes entries like Keyport (G5), Kingsland (G3), Kingston (E5), etc.

NEW MEXICO

Table listing various locations in New Mexico with their corresponding population figures. Includes entries like Abiquiu, (C2), Acme, (E5), Alameda, (C3), etc.

NEW YORK

1915 STATE CENSUS FIGURES

Table listing various locations in New York with their corresponding population figures. Includes entries like Accord, (M13), Acidalia, (K13), Acra, (M11), etc.

Burnhams, (B11)...	100	Chester, (M10)...	170	Crugers, (N16)...	210	East Shelby, (D8)...	150	Frankfort, (K8)...	4,213	Halesite, (O17)...	500	Hunt, (E10)...	140	La Salle, (C8)...	2,402
Burnt Hills, (N9)...	180	Cheviot, (N12)...	140	Crystal Run, (M15)...	150	E. Springfield, (L9)...	200	Franklin, (K11)...	441	Halfmoon, (N9)...	150	Hunter, (M12)...	405	Lassellville, (L8)...	300
Burr Hills, (J5)...	130	Chichester, (M12)...	600	Crystal Spring, (F11)...	150	East Steuben, (K7)...	100	Franklin Springs, (K8)...	350	Hall, (F9)...	330	Hunters Land, (M10)...	170	Laurens, (K10)...	364
Burt, (C7)...	100	Chili, (E8)...	100	Cuba, (D12)...	1,645	E. Syracuse, (H8)...	3,839	Franklinville, (D11)...	2,065	Hallsport, (E12)...	100	Huntington, (O17)...	5,000	Lawrence, (N18)...	1,870
Burtonsville, (M9)...	130	Chipmunk, (C12)...	150	Cuddebackville, (L15)...	150	Eastview, (N16)...	150	Franklinville, (D11)...	2,065	Hallsville, (L9)...	110	Huntington Station, (O17)...	200	Lawrenceville, (L1)...	300
Bushnellville, (M12)...	150	Chippewa Bay, (J3)...	120	Cutchoque, (P16)...	850	E. Williamson, (F7)...	100	Fredonia, (B11)...	5,328	Halsey Valley, (H12)...	300	Hunts Corners, (H11)...	170	Lebanon, (J9)...	180
Bushville, (L14)...	130	Chittenango, (J8)...	1,074	Cuyler, (J10)...	130	E. Williston, (N17)...	100	Freehold, (M11)...	240	Hamburg, (C10)...	2,744	Huntsville, (O11)...	550	Lebanon Springs, (O11)...	170
Bushkirk Bridge, (O9)...	320	Chittenango Falls, (J9)...	200	Cuylerville, (E9)...	250	East Wilson, (C8)...	150	Freeman, (F12)...	500	Hamden, (L12)...	380	Hurley, (M13)...	400	Lee, (J7)...	150
Busti, (B12)...	300	Chittenango Station, (J8)...	150	Dahlia, (L13)...	200	E. Windham, (M11)...	100	Freeport, (N18)...	7,463	Hamilton, (J9)...	1,586	Hurleyville, (L14)...	500	Leeds, (N11)...	330
Byron, (D8)...	350	Churchtown, (N12)...	130	Dale, (D9)...	180	Eastwood, (H8)...	777	Freeport Corners, (H10)...	540	Hamlet, (B11)...	200	Huron, (G8)...	350	Lee's, (N11)...	300
Cadiz, (D11)...	100	Churchville, (E8)...	583	Dalton, (E10)...	530	E. Worcester, (L10)...	500	Fremont Center, (K13)...	337	Hamlin, (E7)...	350	Hyde Park, (N13)...	700	Lee's, (N11)...	300
Cadosia, (K13)...	500	Churchusco, (N1)...	120	Damascus, (J12)...	200	Eaton, (J9)...	1,200	French Mt., (N7)...	300	Hammond, (J3)...	418	Hyde Park, (L10)...	100	Lee's, (N11)...	300
Cadyville, (N2)...	100	Cicero, (H8)...	400	Danby, (H11)...	100	Ebenezer, (C9)...	500	French Woods, (K13)...	120	Hammondspoint, (F11)...	1,560	Ingham Mills, (L8)...	100	Lehigh, (D9)...	100
Cairo, (M11)...	800	Cincinnati, (J10)...	400	Dannemora, (N2)...	869	Eddyville, (C11)...	220	Freewoods, (B12)...	800	Hampton, (O6)...	680	Ingliside, (F10)...	130	Ligon, (K8)...	8,900
Calcium, (J4)...	110	Circleville, (M14)...	120	Dansville, (E10)...	3,975	Eden, (C10)...	700	Friendsburg, (D12)...	1,199	Hancock, (K13)...	1,356	Interlaken, (G10)...	663	Lincoln, (J8)...	200
Caldwell, (N7)...	650	Clarence, (C9)...	500	Darien, (D9)...	200	Eden Valley, (C10)...	150	Frontier, (N1)...	120	Hankins, (K13)...	170	Inverness, (D8)...	260	Leon, (B11)...	250
Caledonia, (E9)...	1,241	Clarence Center, (C8)...	400	Davenport, (L11)...	400	Edenville, (M15)...	300	Fruit Valley, (G7)...	100	Hannawa Falls, (L2)...	300	Indian Falls, (N11)...	160	Lebanonville, (K9)...	350
Callicoon, (K13)...	800	Clarendon, (D8)...	100	Davenport Center, (L11)...	180	Edinburg, (M8)...	150	Fullerville Iron Works, (K4)...	130	Hannibal, (G7)...	432	Indian Lake, (M5)...	300	LeRoy, (D9)...	4,084
Callicoon Center, (L13)...	250	Clark Mills, (K8)...	600	Daysville, (H6)...	130	Edmeston, (K10)...	800	Fulton, (H7)...	11,138	Hannibal Center, (G7)...	250	Ingram Mills, (L8)...	100	LeRoy, (D9)...	4,084
Calvert, (P17)...	210	Clarkson, (E8)...	300	Delhi, (L11)...	1,743	Edwards, (K3)...	504	Fulton Chain, (K6)...	200	Harbor, (K8)...	100	Inlet, (L6)...	170	Levan, (B12)...	100
Cambridge, (O8)...	1,727	Clarksville, (N10)...	400	Dellwood, (C9)...	120	Edwardsville, (J2)...	110	Fultonham, (M10)...	150	Harford, (H11)...	680	Inlet, (L6)...	170	Levan, (B12)...	100
Camden, (J7)...	2,181	Claryville, (L13)...	130	Dellmar, (N10)...	100	Egbertsville, (C9)...	300	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Cameron, (F12)...	500	Claverack, (N12)...	400	Delphi Falls, (J9)...	230	Egypt, (F8)...	300	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Camillus, (H8)...	840	Claverhouse, (E7)...	400	Delta, (K7)...	230	Elba, (D8)...	439	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Campbell, (F12)...	500	Clayburg, (N2)...	150	Delmar, (N10)...	100	Elbridge, (H8)...	475	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Campbell Hall, (M15)...	140	Clayton, (H4)...	1,879	Delphi Falls, (J9)...	230	Eldred, (L14)...	150	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Canaan, (O11)...	220	Clayville, (K9)...	972	Delton, (H11)...	155	Elk Brook, (K13)...	200	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Canajoharie, (L9)...	2,474	Clemons, (O6)...	320	Delton, (H11)...	155	Elk Creek, (L10)...	100	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Canandaigua, (F9)...	7,501	Clermont, (N12)...	120	Delton, (H11)...	155	Ellenburg, (N1)...	500	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Canaseraga, (E11)...	668	Cleves, (N12)...	600	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Canastota, (J8)...	3,849	Clinton, (K8)...	1,264	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Candor, (H12)...	749	Clinton Corners, (N13)...	320	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Candora, (D11)...	450	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Canisteo, (E11)...	2,314	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Cannonsville, (K12)...	300	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Canoga, (G9)...	1,624	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Canton, (K2)...	2,624	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Cape Vincent, (H4)...	1,102	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Capron, (K8)...	600	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Cardiff, (H9)...	100	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Carlisle, (M10)...	300	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Carman, (N9)...	450	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Carmel, (N15)...	800	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Caroga Lake, (M8)...	110	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Caroline, (H11)...	200	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Caroline Center, (H11)...	200	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Caroline Depot, (H11)...	100	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Carrollton, (C12)...	200	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Carthage, (J5)...	3,871	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Cascade Valley, (J12)...	100	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Cassadaga, (B11)...	430	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Cassville, (K9)...	200	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Castile, (D10)...	962	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Castle Creek, (J12)...	200	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Castleton, (N10)...	1,583	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Castorland, (J5)...	300	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Catonsville, (H12)...	200	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Catharine, (G11)...	100	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Cato, (G8)...	390	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Caton, (F12)...	200	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Catskill, (N12)...	5,371	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Cattaraugus, (C11)...	1,276	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Caughdenoy, (H7)...	250	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Cayuga, (G9)...	373	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Cayuta, (G11)...	100	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Cayuta, (G11)...	100	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Cayuta, (G11)...	100	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Cayuta, (G11)...	100	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Cayuta, (G11)...	100	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	100
Cayuta, (G11)...	100	Clinton Falls, (N13)...	260	Delton, (H11)...	155	Ellenburg Center, (N1)...	250	Fultonham, (M10)...	150	Harford Mills, (H11)...	200	Interlaken, (G10)...	663	Levan, (B12)...	

Table listing various locations and their corresponding population figures. Columns include location names (e.g., Marlboro, North Tarrytown, Phoenixia) and population counts (e.g., 795, 4,877, 700).

Westdale, (J7)..... 200	West Hampton Beach, (P17)..... 250	West Oneonta, (K11) 300	West Stephentown, (O10)..... 380	Wheeler, (F11)..... 203	Willet, (J11)..... 339	Winthrop, (L1)..... 350	Wynantskill, (N10) 160
West Darby, (G11) 300	West Haverstraw, (M16)..... 2,330	West Onondaga, (K11) 300	W. Stockholm, (L2) 210	Whippleville, (M1) 200	Williamson, (F7)..... 650	Wiscony, (D11)..... 270	Wyomanock, (O10) 150
W. Davenport, (L11) 120	West Lebanon, (O11) 100	West Point, (M15) 1,200	Westtown, (L15)..... 200	White Creek, (O9)..... 500	Williamstown, (J7) 600	Witherbee, (N4)..... 175	Wyoming, (D9)..... 580
West Eaton, (J9)..... 503	West Leiden, (K7) 600	West Point, (M15) 1,200	West Valley, (C10) 100	Whitehall, (O6)..... 4,666	Williamsville, (C9) 1,272	Yale, (G9)..... 100	Yaphank, (P17)..... 570
W. Edmeston, (K9) 220	West Milton, (N8) 200	West Point, (M15) 1,200	West Vienna, (J8)..... 140	White Lake Corners, (K6)..... 250	Willow, (M12)..... 250	Yates, (D7)..... 150	Yonkers, (N17)..... 90,886
Westernville, (K7) 300	West Monroe, (H7) 180	West Point, (M15) 1,200	Westview, (E10)..... 150	White Plains, (N16) 19,287	Willowemoc, (L13) 250	York, (E9)..... 500	Yorkshire, (D10)..... 300
West Exeter, (K9) 150	Westmoreland, (K8) 350	West Point, (M15) 1,200	Westville Center, (M1)..... 300	Whiteport, (M13)..... 600	Willowvale, (K8)..... 400	Yorktown, (N15)..... 100	Yorkville, (K8)..... 1,086
West Falls, (C10)..... 300	West Nyack, (N16) 230	West Point, (M15) 1,200	West Rush, (E9)..... 200	Whitesboro, (K8)..... 2,493	Willshoro, (O3)..... 650	Yorkville Heights, (N15)..... 1,250	Yorkville, (K8)..... 1,086
Westfield, (A11)..... 3,319		West Point, (M15) 1,200	West Salamanca, (C12) 500	White Sulphur Springs, (L13)..... 250	Woodburn, (O17)..... 300	Yorkville, (K8)..... 1,086	Yorkville, (K8)..... 1,086
Westford, (L10)..... 100		West Point, (M15) 1,200	West Sand Lake, (N10)..... 300	Whitney Point, (J11) 760	Woodhull, (E12)..... 1,352	Yorkville, (K8)..... 1,086	Yorkville, (K8)..... 1,086
West Fort Ann, (N7) 200		West Point, (M15) 1,200	West Sand Lake, (N10)..... 300	Whitney Point, (J11) 760	Woodmere, (N18)..... 600	Yorkville, (K8)..... 1,086	Yorkville, (K8)..... 1,086
West Fulton, (M10) 210		West Point, (M15) 1,200	West Sand Lake, (N10)..... 300	Whitney Point, (J11) 760	Woodstock, (M12) 350	Yorkville, (K8)..... 1,086	Yorkville, (K8)..... 1,086
West Galway, (M9) 300		West Point, (M15) 1,200	West Sand Lake, (N10)..... 300	Whitney Point, (J11) 760	Woodville, (H5)..... 100	Yorkville, (K8)..... 1,086	Yorkville, (K8)..... 1,086
West Granville Corners, (O7)..... 300		West Point, (M15) 1,200	West Sand Lake, (N10)..... 300	Whitney Point, (J11) 760	Worcester, (L10)..... 1,500	Yorkville, (K8)..... 1,086	Yorkville, (K8)..... 1,086
West Hampton, (P17)..... 450		West Point, (M15) 1,200	West Sand Lake, (N10)..... 300	Whitney Point, (J11) 760	Worth, (J5)..... 320	Yorkville, (K8)..... 1,086	Yorkville, (K8)..... 1,086

NORTH CAROLINA

Abbottsburg, (H5) 159	Chadbourn, (H6)..... 1,242	Elk Park, (E2)..... 377	Haw River, (G2)..... 950	Lowell, (C4)..... 876	Norwood, (E4)..... 928	Rosman, (D7)..... 145	Thelma, (K2)..... 130
Aberdeen, (G4)..... 794	Chapel Hill, (G3)..... 1,149	Ellenboro, (B4)..... 293	Hayesville, (B7)..... 98	Louisville, (D4)..... 150	Oak City, (L3)..... 251	Rougemont, (H2)..... 150	Thomas, (J5)..... 150
Acme, (J6)..... 289	Charlotte, (D4)..... 34,014	Elberre, (F4)..... 100	Laywood, (H3)..... 162	Lucama, (J3)..... 266	Oak Ridge, (F2)..... 190	Rowland, (G5)..... 787	Thomasville, (E3) 3,877
Advance, (E5)..... 283	Cherry, (N3)..... 76	Elm City, (K3)..... 590	Hazelwood, (D7)..... 428	Lumber Bridge, (G5) 165	Ocracoke, (O4)..... 250	Roxboro, (H2)..... 1,425	Tillery, (L2)..... 269
Ahoskie, (M2)..... 924	Cherryfield, (D7)..... 200	Elm Grove, (H3)..... 200	Helton, (C1)..... 200	Lumberton, (H5)..... 2,230	Ola, (C6)..... 100	Roxobel, (L2)..... 491	Topsy, (M2)..... 100
Albemarle, (E4)..... 2,116	Cherryville, (C4)..... 1,153	Elmwood, (D3)..... 150	Hemp, (F4)..... 200	Lynn, (A4)..... 200	Old Fort, (A3)..... 778	Royal Cotton Mills, (H3)..... 437	Trentonville, (J2)..... 301
Albemarle, (E4)..... 2,116	Chestnutridge, (D2) 100	Elon College, (G2) 200	Henderson, (J2)..... 4,503	McAdenville, (C4) 983	Olds, (O2)..... 100	Ruffin, (F2)..... 250	Trinity, (E3)..... 332
Alexis, (C4)..... 110	China Grove, (D3) 852	Elrod, (G5)..... 170	Hendersoville, (E7)..... 2,818	McCullers, (H3)..... 100	Oldsparta, (K3)..... 220	Rural Hall, (E2)..... 300	Trivett, (B2)..... 100
Almond, (B7)..... 98	Chiniquap, (K3)..... 350	Embryo, (J2)..... 160	Heno, (G2)..... 120	McFarlan, (E5)..... 186	Oldsparta, (K3)..... 220	Rutherford College, (B3)..... 200	Troy, (F4)..... 1,055
Altamahaw, (G2)..... 306	Chocowinity, (L3) 127	Endon, (G4)..... 120	Henrietta, (B4)..... 1,856	McGuire, (B2)..... 100	Olio, (D3)..... 100	Rutherford College, (B3)..... 200	Tryon, (A4)..... 700
Andrews, (B7)..... 930	Cisco, (M2)..... 100	Enfield, (K2)..... 1,167	Henry, (C3)..... 100	McGuireville, (K3) 110	Oriental, (M4)..... 645	Saginaw, (B2)..... 300	Turnersburg, (D3) 100
Angier, (H3)..... 221	Claremont, (C3)..... 297	Engelhard, (N3)..... 300	Hertford, (N2)..... 1,841	Mackey Ferry, (M3) 230	Osgood, (G3)..... 100	Saint Helena, (K5) 100	Tyner, (M2)..... 500
Ansonville, (E4)..... 486	Clarendon, (H6)..... 147	Enochville, (D3)..... 81	Hickory, (C3)..... 3,716	Madison, (E2)..... 1,033	Otila, (O2)..... 150	Saint Pauls, (G5)..... 419	Union, (L2)..... 139
Apalachia, (A7)..... 100	Clarkton, (H5)..... 276	Eure, (M2)..... 100	Hiddenite, (C5)..... 250	Madison, (E2)..... 1,033	Ottawa, (E7)..... 100	Saint Pauls, (G5)..... 419	Union Mills, (A4)..... 155
Apex, (H3)..... 681	Clayton, (J3)..... 1,441	Eureka, (K3)..... 162	Highlands, (G3)..... 150	Maggie, (C6)..... 150	Oxford, (H2)..... 3,018	Salisbury, (D5)..... 7,153	Valdese, (B3)..... 200
Arden, (E7)..... 145	Clemmons, (E2)..... 100	Everetts, (L3)..... 146	Highlands, (G3)..... 150	Magnic City, (A2) 100	Pactolus, (L3)..... 154	Saluda, (A4)..... 235	Vanceboro, (L4)..... 392
Asheboro, (F3)..... 1,865	Cleveland, (D3) 426	Evergreen, (H6)..... 248	Highlands, (G3)..... 150	Magnolia, (J5)..... 653	Paintock, (D6)..... 100	Salvo, (O3)..... 100	Vandemere, (M4)..... 296
Asheville, (E6)..... 18,762	Cleveland Mills, (B4) 400	Excelsior, (J6)..... 130	High Point, (F7)..... 9,525	Maiden, (C3)..... 664	Palmira, (L2)..... 94	Sandy Ridge, (E1) 250	Vassa, (G4)..... 273
Atlantic, (N5)..... 524	Cliffside, (B4)..... 1,000	Fairbluff, (H6)..... 441	High Shoals, (C4)..... 600	Mamie, (O2)..... 100	Sanford, (G3)..... 324	Sarato, (K3)..... 136	Verona, (L5)..... 100
Aulander, (L2)..... 543	Clinton, (J5)..... 1,101	Fairmont, (G5)..... 730	Hildebrand, (C3)..... 140	Manchester, (G4)..... 200	Sarem, (M2)..... 200	Saxapahaw, (G3)..... 100	Waco, (C4)..... 185
Aurora, (M4)..... 440	Clyde, (D6)..... 344	Fairview, (E6)..... 130	Hillsboro, (G2)..... 857	Manly, (G4)..... 220	Saxapahaw, (G3)..... 100	Scranton, (N4)..... 200	Wadesboro, (E5)..... 2,376
Autryville, (H4)..... 77	Coats, (H4)..... 169	Faison, (J4)..... 519	Hobbsville, (M2)..... 150	Mansfield, (J2)..... 100	Saxapahaw, (G3)..... 100	Seaboard, (L2)..... 280	Wadesboro, (E5)..... 2,376
Avoca, (M3)..... 150	Cofoed, (M2)..... 100	Faith, (E3)..... 350	Hohgodon, (L2)..... 165	Manteo, (J3)..... 408	Saxapahaw, (G3)..... 100	Seagull, (O2)..... 150	Wake Forest, (H3) 1,443
Avon, (O4)..... 400	Cojinock, (N2)..... 150	Falkland, (K3)..... 132	Hoffman, (F4)..... 175	Maple, (N2)..... 150	Saxapahaw, (G3)..... 100	Sealock, (L2)..... 280	Wake Forest, (H3) 1,443
Ayden, (L4)..... 990	Colerain, (M2)..... 189	Falls, (H3)..... 130	Hollysprings, (H3) 261	Mapleton, (L2)..... 52	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Walnut, (D6)..... 215
Aydlett, (O2)..... 150	Coteridge, (F3)..... 100	Falls, (H3)..... 130	Hokkerton, (K4)..... 204	Margaretta, (L1) 107	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Walnut Cove, (E2) 480
Azalea, (E6)..... 100	Cullax, (E2)..... 100	Farmington, (D2)..... 200	Hooverville, (E3)..... 200	Marietta, (G6)..... 200	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Walstonburg, (K3) 127
Bailey, (J3)..... 195	Coltsville, (B3)..... 80	Farmville, (K3)..... 816	Hope Mills, (H5) 964	Mario, (A3)..... 1,519	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Wanchese, (O3)..... 250
Bakersville, (A2) 416	Columbia, (N3)..... 848	Fayetteville, (H4) 7,045	Hot Springs, (D6) 443	Marion, (A3)..... 1,519	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warren Plains, (J2) 130
Balsam Grove, (D7) 190	Columbus, (A4)..... 122	Flat Rock, (D7)..... 300	Howard, (M3)..... 200	Mariposa, (C4)..... 100	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenville, (C2) 100
Bannera Elk, (B2)..... 150	Como, (L2)..... 300	Floral Shoal, (D2)..... 100	Hudson, (C3)..... 411	Marlboro, (K3)..... 225	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Barco, (N2)..... 100	Concord, (D4)..... 8,715	Forest City, (B4)..... 1,592	Hunt Dale, (A2)..... 200	Marshall, (D6)..... 802	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Barium Springs, (D3) 110	Conetoe, (L3)..... 158	Forestville, (J3)..... 137	Huntersville, (D4) 598	Mars Hill, (D6)..... 301	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Bartlett, (N2)..... 150	Connelly Springs, (B3)..... 500	Fort Church, (E3) 300	Inanda, (D6)..... 100	Marshboro, (E5)..... 499	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Bath, (M4)..... 283	Conover, (C3)..... 421	Fort Barnwell, (L4) 140	Indian Trail, (D4) 154	Masheo, (O3)..... 100	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Battleboro, (K2)..... 211	Contentnea, (K3)..... 246	Fort Landing, (N3) 300	Ingot, (J5)..... 124	Mathews, (D4)..... 396	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Bayboro, (M4)..... 370	Conway, (L2)..... 240	Fountain, (K3)..... 189	Inola, (F4)..... 100	Maxton, (G5)..... 1,321	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Bayregrass, (L4)..... 56	Cooleemee, (E5)..... 2,000	Four Oaks, (J4)..... 329	Iron Station, (C4)..... 150	Maysoworth, (C4) 200	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Beaufort, (M5)..... 2,485	Copeland, (D2)..... 100	Franklin, (C7)..... 379	Ivanhoe, (J5)..... 170	Mayodan, (F2)..... 874	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Beelog, (E6)..... 150	Cordova, (F5)..... 250	Franklinville, (J2) 809	Jackson, (L2)..... 527	Mayodan, (F2)..... 874	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Beetree, (E6)..... 200	Corepoint, (M4)..... 120	Franklinville, (F3) 809	Jacksonville, (E3) 505	Mayodan, (F2)..... 874	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Belcross, (N2)..... 150	Cornelius, (D4)..... 833	Freemont, (J3)..... 951	Jacksonville, (M5) 505	Mayodan, (F2)..... 874	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Belhaven, (M3)..... 2,863	Corolla, (O2)..... 100	Frisco, (O4)..... 150	James City, (M4)..... 1,200	Mayodan, (F2)..... 874	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Belmont, (C4)..... 1,176	Council, (J6)..... 74	Fuquay Springs, (H3) 127	Jamesville, (M3)..... 398	Mayodan, (F2)..... 874	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Belvidere, (N2)..... 100	Cove City, (L4)..... 308	Garland, (J5)..... 100	Jarvis, (D2)..... 284	Mayodan, (F2)..... 874	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Belwood, (B4)..... 140	Crabtree, (D6)..... 100	Garner, (H3)..... 284	Jarvisburg, (O2) 400	Mayodan, (F2)..... 874	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Benson, (J4)..... 100	Crabtree, (D6)..... 100	Garysburg, (K2)..... 169	Jason, (K4)..... 60	Mayodan, (F2)..... 874	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Bessmer City, (C4) 1,529	Creston, (B2)..... 100	Gaston, (E5)..... 800	Jefferson, (B2)..... 184	Mayodan, (F2)..... 874	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Bethania, (E2)..... 110	Creswell, (N3)..... 329	Gastonia, (C4)..... 5,759	Jonesboro, (G4) 799	Mayodan, (F2)..... 874	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Bethel, (L3)..... 469	Crouse, (C4)..... 175	Gatesville, (M2)..... 203	Jonesville, (D2) 200	Mayodan, (F2)..... 874	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Biltmore, (E4)..... 162	Crumpler, (C7)..... 100	Germantown, (E2) 154	Julian, (F3)..... 100	Mayodan, (F2)..... 874	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Bituminous, (D6)..... 173	Cullasaja, (C7)..... 250	Gilkey, (B4)..... 200	Juniper, (O3)..... 100	Mayodan, (F2)..... 874	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Biscoe, (F4)..... 450	Cumberland, (G4) 300	Gilkeyville, (E2)..... 1,162	Jupiter, (D6)..... 100	Mayodan, (F2)..... 874	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Blackcreek, (K3)..... 219	Cummock, (G3)..... 200	Gilkey, (B4)..... 200	Kannapolis, (D3) 500	Mayodan, (F2)..... 874	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Black Mountain, (E6) 311	Currie, (J6)..... 100	Glen Alpine, (F3)..... 308	Kelrod, (L2)..... 316	Mayodan, (F2)..... 874	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Bladenboro, (H5) 276	Currick, (N2)..... 200	Glenwood, (E2)..... 100	Kenansville, (K5) 270	Mayodan, (F2)..... 874	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Blowing Rock, (B2) 261	Dallas, (C4)..... 1,065	Gold Hill, (E3)..... 304	Kenly, (J5)..... 726	Mayodan, (F2)..... 874	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Bluff, (D6)..... 140	Danbury, (E2)..... 400	Goldpoint, (L3)..... 126	Kernersville, (E2) 1,128	Mayodan, (F2)..... 874	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Boardman, (H6)..... 796	Davidson, (D3)..... 1,056	Goldstone, (G3)..... 240	Keyser, (G4)..... 170	Mayodan, (F2)..... 874	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Bolton, (J6)..... 350	Davidson River, (D7) 150	Grace, (D6)..... 100	Kingsdale, (G5) 100	Mayodan, (F2)..... 874	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Bonlee, (G3)..... 130	Davis, (N5)..... 250	Graham, (G2)..... 2,504	Kings Mt., (C4) 2,218	Mayodan, (F2)..... 874	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Bonneton, (M4)..... 100	Day Book, (E6)..... 300	Grandy, (O2)..... 100	Kinston, (K4)..... 6,995	Mayodan, (F2)..... 874	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Bonsal, (H3)..... 85	Delwood, (C6)..... 150	Grange, (D7)..... 100	Kipling, (H4)..... 150	Mayodan, (F2)..... 874	Saxapahaw, (G3)..... 100	Selma, (J3)..... 1,331	Warrenton, (J2)..... 807
Boomer, (C2)..... 100	Denton, (E3)						

Table listing cities and their corresponding population counts, organized in three columns. Includes entries like Grafton (G3), Grand Forks (G4), Kenmare (B2), etc.

OHIO

Table listing cities in Ohio and their corresponding population counts, organized in three columns. Includes entries like Abbeville (N5), Aberdeen (F15), Adams Mills (N9), etc.

Table listing cities and populations for states including Ohio, Oklahoma, and Oregon. Columns include city names, state abbreviations, and population figures.

OKLAHOMA

Table listing cities and populations for the state of Oklahoma. Columns include city names and population figures.

OREGON

Table listing cities and populations for the state of Oregon. Columns include city names and population figures.

PENNSYLVANIA

- Aaronsburg, (G6)... 300
- Abbottstown, (H10)... 400
- Abington, (L9)... 400
- Abrahamsville, (L2)... 100
- Abrams, (L9)... 150
- Academia, (G7)... 240
- Academy Centers, (G2)... 750
- Adamsville, (L6)... 350
- Acosta, (C9)... 200
- Adah, (B10)... 500
- Adamsburg, (B8)... 300
- Adamstown, (J9)... 675
- Adamsville, (A3)... 200
- Addingham, (L10)... 100
- Adidiso, (C11)... 230
- Adelaide, (B9)... 500
- Admiral, (H10)... 150
- Adrian, (B10)... 100
- Airville, (J10)... 100
- Airydale, (F8)... 100
- Aitch, (E8)... 200
- Akron, (J9)... 719
- Alba, (H3)... 150
- Albion, (K2)... 1,534
- Alburts, (A7)... 900
- Aldan, (L10)... 661
- Alden Station, (K5)... 200
- Aldenville, (L3)... 130
- Alderson, (J4)... 100
- Aleppo, (A10)... 432
- Alexandria, (E7)... 1,743
- Aliquippa, (A7)... 1,000
- Allegheny, (E7)... 350
- Allen, (G9)... 1,000
- Allentown, (B7)... 1,500
- Allens Mills, (B5)... 200
- Allensville, (F7)... 290
- Alltown, (K7)... 51,913
- Allewood, (H5)... 350
- Allison Park, (B7)... 400
- Allport, (E6)... 400
- Almedia, (J3)... 200
- Altoona, (H3)... 3,000
- Alum Bank, (D9)... 320
- Alvorton, (B9)... 600
- Ambersons Valley, (F9)... 450
- Ambler, (L9)... 2,649
- Ambridge, (A7)... 5,205
- Amity, (A9)... 250
- Amsbury, (D7)... 260
- Andalusia, (M9)... 300
- Anita, (C5)... 3,000
- Annyville, (H3)... 3,000
- Ansonville, (J6)... 400
- Antes Fort, (G5)... 300
- Antrim, (G3)... 1,500
- Apolla, (B7)... 3,006
- Applewood, (B6)... 300
- Aquashicola, (K6)... 300
- Aram, (G10)... 250
- Aran, (K2)... 500
- Arcadia, (L6)... 1,400
- Archbald, (D4)... 7,194
- Ardara, (B8)... 400
- Ardan, (A9)... 400
- Ardmore, (L10)... 3,800
- Arendtsville, (G10)... 383
- Argentine, (B5)... 500
- Ariel, (L4)... 400
- Aristes, (J6)... 400
- Armagh, (C8)... 82
- Armbrust, (B9)... 350
- Arnold, (B7)... 1,813
- Arnot, (G3)... 3,500
- Arona, (B8)... 683
- Arrow, (D9)... 200
- Arroyo, (D4)... 200
- Artz, (H7)... 300
- Ashburn, (L9)... 650
- Ashterton, (H6)... 200
- Ashfield, (K6)... 100
- Ashland, (J6)... 6,855
- Ashley, (K5)... 5,601
- Ashtola, (D9)... 100
- Ashville, (D7)... 384
- Askm, (K5)... 600
- Aspinwall, (B7)... 2,592
- Aston Mills, (L10)... 400
- Atco, (L3)... 100
- Atglen, (K10)... 546
- Athens, (H2)... 3,796
- Athol, (K8)... 230
- Atkinson Mills, (F8)... 100
- Atlantic, (A3)... 200
- Atlas, (J6)... 1,000
- Atwood, (C6)... 191
- Auburn, (J7)... 921
- Audenried, (J6)... 5,000
- Audubon, (L9)... 100
- Aughigh Mills, (F8)... 503
- Austin, (E3)... 2,941
- Austinburg, (F1)... 100
- Austintown, (H2)... 130
- Avalon, (A7)... 4,317
- Avella, (A8)... 500
- Avis, (G5)... 796
- Avoca, (K4)... 4,634
- Avon, (J8)... 400
- Avondale, (K10)... 668
- Avonia, (A1)... 200
- Avonmore, (C7)... 1,262
- Axey, (L4)... 150
- Axemann, (F6)... 200
- Bachmanville, (H9)... 260
- Baden, (A7)... 601
- Bagleigh, (C9)... 1,000
- Bairbridge, (B9)... 800
- Baird, (B9)... 300
- Bakers Summit, (E8)... 200
- Bakersville, (B7)... 300
- Bakersville, (C9)... 100
- Bala, (L10)... 200
- Bald Eagle, (E7)... 300
- Baldmont, (K4)... 170
- Balls Mills, (G4)... 120
- Bally, (K7)... 300
- Balsler, (B8)... 100
- Bangor, (L6)... 5,369
- Banksville, (A8)... 1,300
- Banning, (B9)... 200
- Barbara, (E8)... 200
- Barclay, (H3)... 500
- Bardwell, (K3)... 200
- Bareville, (J9)... 220
- Barker, (L10)... 100
- Barkeyville, (B5)... 150
- Barnes, (D3)... 350
- Barnesboro, (D7)... 3,555
- Barneston, (K9)... 120
- Barnesville, (K6)... 200
- Barre, (F7)... 240
- Barry, (J7)... 100
- Bart, (J10)... 200
- Bartonsville, (L5)... 250
- Bartville, (J10)... 210
- Bartrass, (G5)... 150
- Bath, (L7)... 1,057
- Baumstown, (K8)... 170
- Beachblake, (J5)... 400
- Beachlake, (L3)... 250
- Beachly, (C10)... 200
- Beading, (A8)... 700
- Beaumont, (B9)... 400
- Beaumont, (K4)... 190
- Beaver, (A7)... 3,456
- Beaver Center, (A2)... 150
- Beaverdale, (D3)... 1,200
- Beaver Falls, (A6)... 12,191
- Beaver Meadows, (K6)... 1,530
- Beaver Springs, (G7)... 450
- Beavertown, (G7)... 800
- Beaverville, (J6)... 500
- Bechtelsville, (K8)... 417
- Beckersville, (K9)... 250
- Becks Mills, (A9)... 100
- Bedford, (D9)... 2,235
- Bedminster, (L8)... 100
- Bedochiff, (A8)... 300
- Beech Creek, (F5)... 584
- Beechtree, (D5)... 600
- Beechview, (A8)... 1,500
- Belfast, (L6)... 300
- Bellaire, (H9)... 100
- Bellasylvia, (J4)... 100
- Bellefonte, (F6)... 4,145
- Belle Grove, (H8)... 150
- Belle Vernon, (B9)... 2,372
- Belleville, (F7)... 400
- Bellevue, (A7)... 6,323
- Bellrun, (E2)... 150
- Bells Landing, (D6)... 200
- Bellwood, (E7)... 2,277
- Belsano, (D7)... 200
- Belsina Mills, (E6)... 200
- Ben Avon, (A7)... 1,828
- Bendersville, (G10)... 355
- Benezett, (E4)... 400
- Bennett, (B7)... 8,000
- Bennington Furnace, (D7)... 200
- Benore, (F6)... 200
- Bensalem, (M9)... 100
- Benson, (D9)... 387
- Bentley Creek, (H2)... 150
- Bentleyville, (B9)... 1,922
- Benton, (J5)... 719
- Beringer, (D7)... 150
- Berkley, (C10)... 100
- Berks, (J7)... 200
- Berlin, (D10)... 1,336
- Berlinsville, (K6)... 500
- Bermudian, (G9)... 110
- Berne, (J7)... 100
- Bernharts, (K8)... 110
- Bernaice, (J4)... 600
- Bernville, (J8)... 308
- Berrysburg, (H7)... 377
- Berwick, (G10)... 332
- Berwick, (J5)... 5,357
- Berwiansdale, (D6)... 150
- Berwyn, (L9)... 1,000
- Bessemer, (A6)... 500
- Best, (K7)... 150
- Bethany, (L3)... 130
- Bethayres, (L9)... 350
- Bethel, (J8)... 700
- Bethel, (A5)... 160
- Bethesda, (J10)... 150
- Bethlehem, (L7)... 12,837
- Biglerville, (G10)... 386
- Biggpond, (H2)... 100
- Big Run, (D5)... 1,032
- Big Shanty, (D2)... 220
- Bigspring, (G9)... 150
- Bingen, (L7)... 250
- Binkley, (J9)... 250
- Birchardville, (K2)... 100
- Birchrunville, (K9)... 130
- Bird In Hand, (J9)... 250
- Birdsboro, (K9)... 2,930
- Birdville, (B7)... 200
- Birmingham, (E7)... 196
- Bishop, (A8)... 500
- Bismarck, (J8)... 700
- Bittersville, (H10)... 100
- Bituminous, (F4)... 400
- Blackash, (B5)... 180
- Blackhawk, (K10)... 330
- Black Lake, (C8)... 1,500
- Blacklog, (F8)... 200
- Black Walnut, (J3)... 100
- Blain, (F8)... 520
- Blain City, (D6)... 326
- Blainsport, (J8)... 180
- Blairs Mills, (F9)... 100
- Blair Station, (A8)... 400
- Blairsville, (C8)... 3,572
- Blairsville Intersection, (C8)... 400
- Blakely, (K4)... 5,345
- Blackless, (K5)... 200
- Blanchard, (F5)... 550
- Blangford, (E7)... 1,800
- Blandon, (K8)... 600
- Bloomfield, (G8)... 762
- Bloomington, (J5)... 200
- Blooming Glen, (L8)... 300
- Blooming Grove, (L4)... 150
- Blooming Valley, (A3)... 150
- Bloomsburg, (H5)... 7,413
- Blosserville, (G9)... 130
- Bloussburg, (G3)... 2,303
- Blue Ball, (J9)... 200
- Bluebell, (L9)... 150
- Blythedale, (B9)... 800
- Boalsburg, (F6)... 300
- Bohones, (H4)... 200
- Boiling Springs, (G9)... 500
- Bolivar, (C8)... 518
- Bonneauville, (G10)... 200
- Boonnybrook, (G9)... 100
- Booneville, (G5)... 140
- Booth Corner, (K10)... 140
- Boquet, (B8)... 130
- Boston, (B8)... 800
- Bourne, (D9)... 1,878
- Bowling, (H2)... 100
- Bower Hill, (A8)... 300
- Bowers, (K8)... 200
- Bowersville, (D6)... 180
- Bowmansdale, (H9)... 240
- Bowmansville, (K6)... 400
- Bowmansville, (J9)... 250
- Boyers Station, (A8)... 100
- Boyers, (B5)... 200
- Boyersburg, (K8)... 2,433
- Bracken, (D8)... 200
- Brackebridge, (H7)... 3,134
- Bradford, (B8)... 19,357
- Bradenville, (C8)... 1,000
- Bradford, (D2)... 14,544
- Bradys Bend, (B5)... 500
- Braeburn, (B7)... 200
- Braman, (L2)... 100
- Branch Dale, (J7)... 750
- Brandonville, (J6)... 200
- Brandt, (L2)... 200
- Brandywine Manor, (K9)... 100
- Brandywine Summit, (K10)... 200
- Braznell, (B9)... 200
- Breadysville, (L9)... 100
- Breinsville, (K7)... 200
- Breslau, (K5)... 200
- Brickville, (J9)... 200
- Bridgeport, (B10)... 3,400
- Bridgeport, (L9)... 3,860
- Bridgeton, (J10)... 500
- Bridge Valley, (L6)... 160
- Bridgeville, (A8)... 1,983
- Brigewater, (A7)... 1,562
- Brinton, (B8)... 400
- Brisbin, (E6)... 459
- Bristol, (M9)... 9,256
- Bristolia, (A10)... 150
- Broadaxe, (L9)... 160
- Broad Ford, (B9)... 500
- Broad Mountain, (J7)... 800
- Broadtop, (E9)... 478
- Brookport, (D4)... 400
- Brookton, (J7)... 300
- Brookwayville, (D4)... 898
- Brodbecks, (H10)... 100
- Brodheadsville, (L6)... 650
- Brookfield, (F2)... 100
- Brook Haven, (L10)... 100
- Brookland, (F2)... 120
- Brookline, (A8)... 180
- Brooklyn, (K2)... 300
- Brookton, (C3)... 500
- Brookville, (C5)... 3,003
- Broomall, (I10)... 140
- Broughton, (A8)... 2,000
- Brownfield, (B10)... 1,500
- Brownsdale, (B6)... 100
- Brownstown, (D8)... 1,300
- Brownstown, (J9)... 600
- Browsville, (J8)... 200
- Brownsville, (B9)... 2,324
- Bruneton, (A8)... 500
- Brum, (B5)... 539
- Brunsbury, (E9)... 100
- Brunfieldville, (K8)... 320
- Brunnville, (J9)... 500
- Brush Creek, (A6)... 110
- Brush Valley, (C7)... 250
- Bryansville, (J11)... 120
- Bryn Athyn, (L9)... 130
- Bryn Mawr, (L9)... 3,100
- Buckgen, (I6)... 200
- Buckhorn, (H5)... 170
- Buckingham, (L8)... 180
- Buck Mt., (J6)... 300
- Bucknell, (H6)... 100
- Buena Vista, (B8)... 500
- Buffalo Mills, (D10)... 200
- Buffalo Roads, (G6)... 200
- Buffaloroad, (E6)... 120
- Builer, (A8)... 1,200
- Bull Mills, (E2)... 120
- Bumpville, (J8)... 150
- Bunkerhill, (J2)... 150
- Bunola, (B9)... 300
- Burdine, (A8)... 300
- Burgetstown, (A8)... 1,263
- Burlington, (H2)... 140
- Burnham, (F7)... 700
- Burnside, (D6)... 493
- Burnt Cabins, (F9)... 120
- Burnwood, (K2)... 120
- Burrows, (F3)... 180
- Bushkill, (L7)... 170
- Butler, (B5)... 1,738
- Buttontown, (G3)... 200
- Butzton, (L7)... 200
- Brynedale, (D4)... 600
- Cabot, (I6)... 200
- Cains, (K9)... 150
- Caledonia, (E4)... 260
- California, (L8)... 120
- California, (B5)... 2,250
- Callensburg, (B5)... 198
- Callery, (A7)... 235
- Calumet, (B7)... 500
- Camargo, (J10)... 180
- Camara, (J5)... 200
- Cambridge, (K9)... 130
- Cambridge Springs, (A2)... 1,514
- Camden, (B8)... 300
- Cameron, (E4)... 300
- Cammal, (G4)... 700
- Campbelltown, (H8)... 280
- Camp Hill, (A5)... 150
- Campbell, (H9)... 875
- Camptown, (J3)... 230
- Canadensis, (L5)... 250
- Candor, (A8)... 300
- Cannelton, (A6)... 300
- Canoe Camp, (G2)... 140
- Canoe Run, (E4)... 300
- Canonsburg, (A8)... 3,891
- Cantao, (H3)... 1,637
- Carbon, (B8)... 600
- Carbondale, (K3)... 17,040
- Cardiff Mines, (D4)... 300
- Cardington, (L10)... 400
- Carlisle, (G9)... 10,303
- Carroll, (A7)... 200
- Carr, (B6)... 200
- Carrick, (B8)... 6,117
- Carroll, (G5)... 200
- Carrolltown, (D7)... 1,348
- Cartwright, (D4)... 1,000
- Carsville, (L8)... 170
- Carverton, (K4)... 200
- Cashtown, (G10)... 170
- Cassandria, (D8)... 306
- Casselman, (C10)... 166
- Cassville, (E8)... 165
- Castle Fin, (J10)... 100
- Castle Shannon, (A8)... 2,600
- Catact, (E5)... 30
- Catasauqua, (L7)... 5,250
- Catawissa, (H6)... 1,930
- Catfish, (B5)... 200
- Cato, (F5)... 300
- Cecil, (A8)... 1,500
- Cedarlane, (K9)... 100
- Cedarrun, (G3)... 100
- Cederville, (K9)... 240
- Celia, (A6)... 200
- Cementon, (K7)... 2,000
- Centerbridge, (M8)... 160
- Centerhall, (F6)... 500
- Center Moreland, (K4)... 110
- Centerport, (J8)... 111
- Centerroad Station, (A3)... 300
- Center Square, (L9)... 130
- Center Valley, (L7)... 500
- Centerville, (B3)... 264
- Centerville, (B9)... 1,413
- Central, (J4)... 100
- Centralia, (J6)... 2,429
- Cetronia, (L7)... 200
- Chadds Ford, (K10)... 300
- Chalfont, (L8)... 303
- Chalmers, (D4)... 100
- Chambersburg, (F10)... 11,800
- Chambersville, (C7)... 600
- Chandlers Valley, (C2)... 200
- Chaoyesville, (E10)... 200
- Chapel, (K8)... 100
- Chapman, (L7)... 253
- Chapman, (H7)... 320
- Chapman Quarries, (L7)... 350
- Chapmans Run, (E10)... 100
- Charleston, (A5)... 190
- Chatham, (K10)... 190
- Chauncy, (K5)... 400
- Cheat Haven, (B11)... 200
- Chelsea, (L10)... 100
- Cheltenham, (H9)... 400
- Cherry Flats, (G3)... 130
- Cherry Hill, (A2)... 150
- Cherry Hill, (L7)... 100
- Cherry Mills, (H3)... 140
- Cherry Tree, (D7)... 439
- Cherrytree, (B3)... 100
- Cherry Valley, (B5)... 113
- Cherry Valley, (A8)... 1,400
- Cherryville, (K6)... 300
- Chester, (L10)... 38,337
- Chester Heights, (L10)... 130
- Chester Hill, (E6)... 648
- Chester Springs, (K9)... 180
- Chester Valley, (L9)... 160
- Cove Forge, (E8)... 100
- Covingtonville, (K9)... 100
- Covington, (G3)... 340
- Covode, (C6)... 300
- Cowan, (H6)... 210
- Cowaness, (G2)... 330
- Cowanesshannock, (C6)... 200
- Cowansville, (B6)... 200
- Crabtree, (C8)... 200
- Crafton, (A8)... 4,583
- Craigsville, (B6)... 250
- Craley, (H10)... 150
- Cramer, (C8)... 160
- Craneberry, (B4)... 200
- Cranesville, (A2)... 200
- Creamery, (L9)... 150
- Creekside, (C7)... 563
- Creighton, (B7)... 600
- Crescaw, (D5)... 400
- Cresco, (L5)... 200
- Cressman, (L8)... 300
- Cresson, (D8)... 1,470
- Cressona, (J7)... 1,337
- Creswell, (J10)... 120
- Crooked Creek, (G2)... 100
- Crosby, (E3)... 100
- Cross Creek, (A8)... 150
- Cross Fork, (F4)... 800
- Crosskill Mills, (J8)... 100
- Crossroads, (L7)... 100
- Crossroads, (H10)... 158
- Crothers, (A9)... 100
- Crumlyne, (L10)... 600
- Cumberland Valley, (D10)... 130
- Curlsville, (E10)... 150
- Curtin, (H7)... 100
- Clermont, (E3)... 300
- Cleversburg, (G9)... 130
- Clifford, (K3)... 200
- Clifton, (A8)... 300
- Clifton Heights, (L10)... 3,155
- Climax, (C5)... 150
- Clinton, (A7)... 300
- Clinton, (L3)... 250
- Clintondale, (G5)... 220
- Clintonsville, (B5)... 335
- Cloe, (D6)... 200
- Clovercreek, (E8)... 110
- Clymer, (C7)... 1,753
- Coal Bluff, (A9)... 500
- Coal Castle, (J7)... 200
- Coal Center, (B9)... 816
- Coaldale, (E9)... 311
- Coaldale, (K6)... 5,154
- Coal Glen, (D5)... 300
- Coalhill, (B4)... 100
- Coalport, (E9)... 228
- Coalport, (D7)... 876
- Coalridge, (K4)... 200
- Coalrun, (C10)... 250
- Coaltown, (B5)... 150
- Coal Valley, (B5)... 200
- Coatesville, (K10)... 11,084
- Coburn, (G6)... 200
- Coicalco, (J8)... 150
- Cochran, (A3)... 695
- Cochranville, (K10)... 250
- Cocolamus, (G7)... 100
- Codorus, (H10)... 420
- Coffeevont, (L7)... 500
- Cogan House, (G4)... 400
- Cogan Station, (G4)... 200
- Cohn, (G6)... 200
- Cokeburg, (A9)... 1,302
- Cokeyville, (C8)... 409
- Colebrook, (J9)... 140
- Colegrove, (E3)... 100
- Colesburg, (F2)... 200
- Coleville, (D2)... 100
- Collamer, (K10)... 150
- College Hill, (A6)... 1,787
- Collegeville, (L9)... 621
- Collingdale, (L10)... 1,361
- Colliers, (H9)... 150
- Colomsville, (G5)... 170
- Colmar, (L8)... 150
- Coionia, (A7)... 1,000
- Columbia, (J9)... 11,454
- Columbia Cross Roads, (H2)... 200
- Columbus, (B2)... 346
- Colwyn, (L10)... 1,584
- Concord, (F9)... 170
- Concordville, (K10)... 400
- Conemaugh, (B8)... 3,500
- Conestoga, (J10)... 600
- Confine, (C10)... 890
- Conifer, (C5)... 300
- Conneaut Lake, (A3)... 725
- Conneautville, (A2)... 867
- Connellsville, (B9)... 12,845
- Conoquenessing, (A6)... 400
- Conrad, (F3)... 360
- Conshohocken, (L9)... 480
- Conway, (A7)... 1,483
- Conyngham, (J6)... 400
- Coopersburg, (L7)... 150
- Coolsburg, (C4)... 150
- Coolbaughs, (L5)... 100
- Coole, (C9)... 150
- Donora, (B9)... 8,174
- Dormont, (A8)... 1,115
- Dornis, (H7)... 110
- Dorrance, (K4)... 4,046
- Dorseyville, (B7)... 500
- Douglassville, (K8)... 130
- Dover, (H9)... 576
- Downingtown, (B7)... 200
- Downingtown, (K9)... 3,326
- Doylestown, (F9)... 100
- Doylestown, (L8)... 3,304
- Draketown, (C10)... 120
- Dixonville, (C7)... 800
- Doerun, (K10)... 220
- Dolington, (M9)... 130
- Donaldson, (J7)... 1,100
- Donnegal, (C9)... 147
- Dord, (E2)... 1,235
- Eldersville, (H3)... 100
- Eleanor, (D5)... 500
- Elgin, (B2)... 148
- Elmport, (G5)... 400
- Elizabeth, (B8)... 2,311
- Elizabethville, (H9)... 2,587
- Elizabethville, (H7)... 1,039
- Elk City, (B4)... 100
- Elk Grove, (J4)... 100
- Elkhorn, (B9)... 200
- Elk Lake, (J3)... 200
- Elkland, (G1)... 1,175
- Elk Lick, (C11)... 1,200
- Ellenton, (H3)... 100
- Elliott, (A8)... 4,200
- Elliottburg, (G8)... 140
- Elliott Mills, (A5)... 650
- Elliottson, (G9)... 110
- Ellisburg, (F2)... 100
- Ellsworth, (B9)... 2,084
- Elmwood City, (A6)... 3,902
- Elm, (H9)... 170
- Elmer, (F2)... 200
- Elmhurst, (K4)... 379
- Elmora, (B7)... 1,000
- Elrama, (D9)... 200
- Elroy, (L8)... 250
- Elton, (D8)... 250
- Elverson, (K9)... 350
- Elwyn, (L10)... 150
- Elysburg, (H6)... 200
- Emaus, (L7)... 3,501
- Embsville, (K10)... 130
- Emigh, (D7)... 400
- Emerald, (K7)... 200
- Emersville, (C5)... 180
- Emigsville, (H9)... 200
- Emington, (B5)... 1,110
- Emporium, (E3)... 2,916
- Emporium, (A7)... 1,510
- Endeavor, (C3)... 400
- Enders, (H8)... 100
- Englesville, (K8)... 100
- English Center, (G4)... 600
- Enhart, (H9)... 450
- Enon Valley, (A6)... 354
- Enterprise, (H8)... 120
- Enterprise, (B3)... 600
- Enrika, (F8)... 180
- Enright, (B9)... 3,192
- Enston, (B8)... 300
- Ensworth, (L2)... 400
- Erden, (E7)... 900
- Ere, (A1)... 66,525
- E. Broadtop, (E9)... 100
- E. Eastbrook, (A5)... 200
- E. Butler, (B6)... 500
- E. Canton, (H3)... 130
- E. Charleston, (G2)... 150
- E. Conemaugh, (D8)... 5,046
- E. Coventry, (K9)... 300
- E. Downingtown, (K9)... 2,000
- E. Earl, (J9)... 150
- E. Freedom, (D8)... 330
- E. Greensburg, (B8)... 1,500
- E. Greenville, (L1)... 2,235
- E. Hancock, (H2)... 330
- E. Haverly, (C3)... 350
- E. Hatfield, (K3)... 100
- E. McKeesport, (B8)... 2,118
- E. Mauch Chunk, (K6)... 3,548
- E. Nantmeal, (K9)... 200
- E. Newcastle, (A6)... 200
- Easton, (L7)... 28,523
- E. Petersburg, (J9)... 600
- E. Pittsburg, (H8)... 5,615
- E. Prospect, (H10)... 316
- E. Riverside, (B10)... 100
- E. Rochester, (A7)... 718
- East Side, (K5

Table listing Pennsylvania locations and their populations. Columns include location names (e.g., Adersicksburg, Adams, Adonia), population counts, and corresponding page numbers. The list is organized alphabetically by location name.

- Pineville, (M8)..... 100
- New Eagle, (B9)..... 400
- Newell, (B9)..... 400
- New England, (B8)..... 450
- New Enterprise, (E9) 210
- New Era, (J3)..... 150
- New Florence, (C8) 717
- Newfoundland, (L4) 900
- New Franklin, (F10) 130
- New Freedom, (H11) 726
- New Freeport, (A10) 200
- New Galilee, (A6)..... 453
- New Geneva, (B10) 290
- New Germantown, (F8)..... 200
- New Grenada, (E9) 100
- New Hamburg, (A4) 100
- New Hanover, (K8) 510
- Newhaven, (B9)..... 2,600
- New Holland, (J9)..... 1,106
- Newhope, (M8)..... 1,083
- New Jerusalem, (K8) 250
- New Kensington, (B7)..... 7,707
- New Kingstown, (G9) 330
- New Lebanon, (A4) 164
- Newlin, (J6)..... 200
- New London, (K10) 150
- New Mahoning, (K6) 150
- Newmanstown, (C8) 710
- New Mayville, (C5) 150
- New Millford, (K2) 654
- New Millport, (D6) 250
- New Oxford, (G10) 838
- New Paris, (D9) 194
- Newpark, (J11)..... 160
- New Philadelphia, (J7)..... 2,512
- Newport, (G8)..... 2,009
- Newportville, (M9) 300
- New Providence, (J10)..... 200
- New Ringold, (K7) 266
- Newry, (E8)..... 380
- New Salem, (C5) 100
- New Salem, (B10) 500
- New Salem, (B8)..... 424
- New Salem, (H10) 248
- New Sheffield, (A7) 200
- New Stanton, (B9) 300
- New Texas, (B7)..... 100
- Newtown, (D6) 150
- Newtown Hamilton, (F8)..... 340
- Newtown, (M5)..... 1,675
- Newtown Mills, (C3) 100
- Newtown Square, (K10) 150
- New Tripoli, (L7)..... 500
- Newville, (G9)..... 1,449
- New Washington, (D6) 174
- New Wilmington, (A5)..... 758
- Nicholson, (K3)..... 852
- Nickel Mines, (J10) 200
- Nicktown, (D7)..... 150
- Niles Valley, (G2) 209
- Nineveh, (A10) 250
- Nittany, (F6)..... 180
- Noblesstown, (A8)..... 1,000
- Northmont, (J4) 100
- Normal, (K6)..... 130
- Normalville, (C10) 140
- Norristown, (L9)..... 27,875
- Northampton, (L7) 8,729
- Northampton Heights, (L7)..... 1,037
- No. Belle Vernon, (B9)..... 1,522
- Northbend, (F4)..... 800
- No. Berwick, (J5) 100
- No. Braddock, (B8)..... 11,824
- Northbrook, (K10) 130
- No. Catawauqua, (L7)..... 2,030
- No. Charleroi, (B9) 1,008
- No. East, (B1)..... 2,672
- No. Freedom, (C5) 130
- No. Girard, (A1)..... 750
- No. Irwin, (B8)..... 646
- No. Jackson, (K2) 100
- No. Liberty, (A5) 150
- No. Mehoopany, (J3) 300
- No. Mountain, (H4) 200
- No. Pinegrove, (C4) 250
- No. Rome, (J2)..... 100
- No. Sewickly, (A6) 300
- No. Springfield, (A1) 150
- No. Star, (A8)..... 500
- No. Towanda, (J2) 910
- Northumberland, (H6)..... 3,517
- Northville, (B1)..... 120
- No. Wares, (L9)..... 1,710
- No. Warren, (C2) 650
- No. Washington, (B5) 200
- No. Water Gap, (L5) 200
- No. York, (H10) 1,902
- Norwood, (L10) 1,668
- Norwood Station, (L10)..... 1,400
- Nottingham, (K11) 150
- Norton, (C7)..... 500
- Noxen, (J4)..... 800
- Nuangola, (K5)..... 124
- Nunidia, (J6)..... 300
- Nuremberg, (J6) 700
- Oakbottom, (J10) 300
- Oakbrook, (K8)..... 200
- Oakdale, (A8)..... 1,353
- Oak Hall Sta, (F6) 210
- Oakhill, (J10)..... 300
- Oakland, (C2)..... 360
- Oakland, (K6)..... 915
- Oakmont, (B7)..... 3,436
- Oak Ridge, (C5) 900
- Oaks, (L9)..... 120
- Oak Station, (A8) 250
- Oakview, (L10) 400
- Oakville, (G9) 130
- Obelisk, (K8)..... 250
- Oberlin, (H9)..... 550
- Obold, (J8)..... 250
- Octoraro, (J10) 100
- Ogdenal, (D8)..... 300
- Ogden, (L10)..... 110
- Ogdensburg, (G3)..... 300
- Ogontz, (L9)..... 300
- Ogontz School, (L9) 300
- Ohiopele, (C10)..... 535
- Oil City, (B4)..... 15,657
- Olanta, (D6)..... 150
- Oldforge, (K4)..... 11,324
- Old Zionsville, (K8) 150
- Oley, (K8)..... 650
- Olyphant Furnace, (B10)..... 200
- Oliver, (B10)..... 1,000
- Olivers Mills, (K5) 500
- Olyphant, (K4)..... 8,505
- Onaida, (J6)..... 1,200
- Onalinda, (D8)..... 100
- Ono, (H8)..... 120
- Oonadaga, (D6) 500
- Onset, (H8)..... 180
- Option, (B8)..... 350
- Orangeville, (J5) 299
- Orishonia, (F9) 618
- Orefield, (K7) 250
- Oregon, (J9)..... 150
- Ore Hill, (E8)..... 500
- Oreland, (L9)..... 200
- Orient, (B10)..... 1,600
- Oriental, (G7)..... 120
- Oriole, (G5)..... 120
- Ormsby, (D2)..... 300
- Orstown, (F9) 247
- Orson, (L2)..... 530
- Orviston, (F5)..... 500
- Orwell, (J2)..... 120
- Orwigsburg, (J7)..... 1,801
- Orwin, (H7)..... 300
- Osburn, (A7)..... 425
- Oscola, (G2)..... 591
- Oscola Mills, (E6) 2,437
- Oshanter, (D6) 400
- Osterburg, (D9) 150
- Osterhout, (K3) 150
- Oswayo, (E2)..... 382
- Otto, (B8)..... 200
- Ottsville, (L8) 300
- Oval, (G5)..... 220
- Oxford, (K10)..... 2,990
- Oxford Valley, (M9) 250
- Oxford, (K2)..... 400
- Packtown, (K6) 500
- Paint, (D9)..... 999
- Paintersville, (G7) 100
- Palm, (K8)..... 150
- Palmer, (A2)..... 100
- Palmerton, (K6)..... 1,000
- Palmyra, (H8)..... 2,000
- Palm Atoll, (J7) 1,873
- Pan, (C5)..... 200
- Panic, (D5)..... 150
- Pansy, (C5)..... 200
- Paoli, (L9)..... 240
- Paradise, (J10) 410
- Paradise Valley, (L5) 130
- Pardoe, (A5)..... 150
- Pardus, (D5)..... 250
- Paris, (A8)..... 758
- Parker Ford, (K9) 200
- Parkers Landing, (B5)..... 1,244
- Parkersville, (K10) 100
- Parkburg, (K10) 2,522
- Parkland, (M9) 100
- Parkplace, (F6) 320
- Parkness, (B7)..... 2,578
- Parryville, (K6) 590
- Parsons, (K5)..... 4,338
- Parthenia, (C2) 150
- Passmore, (K8) 250
- Princeton, (A6) 300
- Patterson, (G7) 885
- Patterson Hgts, (A6) 367
- Patton, (D7)..... 3,907
- Paulton, (B7)..... 500
- Paupac, (L4)..... 160
- Paxton, (H7)..... 210
- Paxtonville, (G6) 200
- Peach Bottom, (J11) 150
- Peale, (E5)..... 800
- Peckville, (K4)..... 4,200
- Peely, (K5)..... 1,000
- Pen Argyl, (L6) 3,967
- Penbrook, (H8)..... 1,462
- Penfold, (L9)..... 800
- Penick, (D5)..... 800
- Penllyn, (L9)..... 130
- Penn, (B8)..... 1,048
- Penna Run, (C7) 200
- Pennsburg, (L8)..... 1,141
- Penns Creek, (G6) 270
- Pennsdale, (H4) 200
- Penos Park, (M8) 150
- Penns Station, (B8) 150
- Pennsville, (B9) 300
- Pennsylvania Furnace, (F7)..... 300
- Pennvalley, (M9) 150
- Penryn, (J9)..... 200
- Pensyl, (J9)..... 500
- Peoples, (J7)..... 100
- Pequa, (K9)..... 200
- Pequa Creek, (J10) 200
- Percy, (B10)..... 500
- Perkiame, (L8)..... 2,779
- Perkiomenville, (K8) 230
- Perryopolis, (B7) 600
- Perrysville, (A7) 300
- Petersburg, (E7) 705
- Peterscreek, (J11) 200
- Petroleum Center, (B3)..... 200
- Petrolia, (B5)..... 360
- Pfouts Valley, (G7) 100
- Philadelphia, (L10)..... 1,549,008
- Phillipsburg, (E6) 3,585
- Phillipston, (B5) 500
- Phoenix, (C6) 360
- Phoenixville, (K9) 1,743
- Picture Rocks, (H4) 576
- Pikeville, (K8) 150
- Piketown, (H8) 130
- Pillow, (H7)..... 450
- Pine Bank, (A10) 200
- Pine Forge, (K8) 160
- Pinegrove, (E5) 210
- Pineview, (J7)..... 1,352
- Pinegrove Furnace, (G9)..... 300
- Pinegrove Mills, (F7) 330
- Pine Station, (G5) 200
- Pinkerton, (C10)..... 210
- Pipersville, (L8)..... 220
- Pitcairn, (B8)..... 4,975
- Pittman, (H7)..... 210
- Pittcock, (A8)..... 1,500
- Pittsburg, (B8)..... 533,905
- Pittsfield, (C2)..... 300
- Pittston, (K4)..... 16,267
- Pittsville, (B4)..... 110
- Plainfield, (G9) 260
- Plaingrove, (A5) 670
- Plains, (K4)..... 2,000
- Plainsville, (K4) 210
- Platea, (A2)..... 220
- Pleasant Gap, (F6) 400
- Pleasant Grove, (J11) 100
- Pleasant Hill, (A6) 100
- Pleasant Mount, (L3) 200
- Pleasant Run, (K8) 110
- Pleasant Unity, (C9) 630
- Pleasant Valley, (L7) 100
- Pleasant Valley, (B8) 300
- Pleasantview, (F8) 130
- Pleasantville, (E9) 191
- Pleasantville, (B3) 702
- Plummer, (B3) 100
- Plumsteadville, (L8) 600
- Plumville, (C6) 414
- Plymouth, (K5)..... 16,996
- Plymouth Meeting, (L9)..... 800
- Pocahontas, (D11) 100
- Point Marion, (B11) 1,359
- Point Pleasant, (L8) 300
- Polk, (B4)..... 2,066
- Pollock, (B5)..... 250
- Pomeroy, (K10) 300
- Pond Eddy, (M4) 200
- Pont, (A2)..... 100
- Portage, (D8)..... 2,954
- Portage Creek, (E3) 100
- Port Allegany, (E2) 1,978
- Port Carbon, (J7) 2,672
- Port Clinton, (K7) 491
- Portersville, (A6) 170
- Port Griffith, (K4) 200
- Port Kennedy, (L9) 1,000
- Portland, (L6) 649
- Portland Mills, (D4) 750
- Port Matilda, (E6) 310
- Port Perry, (B8)..... 1,300
- Port Providence, (L9)..... 300
- Port Royal, (G7)..... 535
- Port Royal, (B9) 400
- Port Trevorton, (H7) 450
- Portvue, (B8)..... 1,978
- Potterbrook, (F2) 200
- Potterdale, (E5) 120
- Potters Mills, (F6) 320
- Pottersville, (J2) 130
- Potts Grove, (H5) 180
- Pottstown, (K9) 15,599
- Pottstown Landing, (K9)..... 200
- Poitsville, (J7)..... 20,236
- Powell, (H3)..... 300
- Powellton, (E6) 150
- Powys Valley, (H8) 230
- Prescottville, (D5) 300
- Presto, (B8)..... 250
- Priceburg, (K9)..... 500
- Pricedale, (B4)..... 1,000
- Priceton, (K8) 410
- Primrose, (A8) 200
- Princeton, (A6) 300
- Pringle, (K4)..... 300
- Proctor, (H4)..... 350
- Progress, (H8)..... 300
- Prompton, (L3) 263
- Prospect, (A6)..... 346
- Prospect Park, (L10)..... 1,655
- Prospectville, (L9) 160
- Prosperity, (A9) 180
- Providence Sq, (L9) 100
- Pulaski, (A5)..... 400
- Punxsutawney, (C6) 9,058
- Puritan, (D8)..... 450
- Putneyville, (C6) 150
- Quakake, (J6)..... 500
- Quakertown, (L8) 3,801
- Quarryville, (J10) 739
- Queen, (D8)..... 120
- Queen Junction, (B6) 200
- Queenstown, (B5) 72
- Quincy, (F10)..... 500
- Raccoon, (A8) 100
- Racine, (A6)..... 200
- Radnor, (L9)..... 3,000
- Railroad, (H11) 308
- Rainsburg, (D10) 203
- Ralston, (H4)..... 900
- Ramey, (E6)..... 1,045
- Ramsaytown, (C5) 600
- Randolph, (A3) 170
- Rankin Sta, (B8) 6,042
- Ranshaw, (H5)..... 200
- Rathmel, (D5)..... 1,000
- Rattigan, (B6) 200
- Rausbville, (L7) 100
- Rauchtown, (G5) 200
- Ravenrun, (J6) 500
- Ravine, (J7)..... 300
- Rawlinsville, (J10) 180
- Rays Hill, (E10) 100
- Reading, (K8) 96,071
- Reamstown, (J9) 800
- Rebersburg, (F6) 250
- Rebuck, (H7)..... 400
- Redbank, (B5)..... 100
- Redliffe, (C4) 150
- Redhill, (K8) 664
- Redington, (L7) 360
- Redland, (G10) 150
- Red Lion, (H10)..... 2,092
- Redman Mill, (B8) 500
- Red Rock, (D2) 130
- Redrun, (J9)..... 150
- Reedsville, (F7) 310
- Refton, (J10) 100
- Register, (J5) 170
- Rehersburg, (J8) 510
- Reiner City, (H7) 250
- Reinholds Sta, (J8) 160
- Reising, (A8) 350
- Reith, (H10)..... 130
- Remlu, (L9)..... 100
- Rendham, (K4)..... 500
- Renfrew, (B6)..... 500
- Rennerdale, (A8) 300
- Reno, (B4)..... 350
- Renovo, (F4)..... 4,621
- Republic, (B10)..... 1,000
- Reynolds, (K7) 110
- Reynoldsville, (D5) 3,189
- Rheems, (H9)..... 250
- Rhodes, (J6)..... 250
- Rhone, (K5)..... 200
- Rices Landing, (A10) 611
- Riceville, (B2) 121
- Richardsville, (C5) 150
- Richboro, (M9) 230
- Richfield, (G7) 230
- Rich Hill, (L8) 100
- Richland, (J8)..... 722
- Richland Center, (L8)..... 1,000
- Richlandtown, (L8) 562
- Richmond, (L6) 100
- Ricketts, (J4) 250
- Riddlesburg, (E9) 230
- Ridgway, (D4)..... 5,408
- Ridley Park, (L10) 1,761
- Riegelsville, (L7) 700
- Rimer, (B6)..... 150
- Rimersburg, (C5) 855
- Ringdale, (J4) 100
- Ringold, (C5) 130
- Ringtown, (J6) 723
- Rittersville, (L7) 250
- Riverside, (H6) 429
- River View, (B9) 400
- Rixford, (D2) 500
- Roaring Branch, (H3) 450
- Roaring Creek, (J6) 700
- Roaring Spring, (E8)..... 1,903
- Robbins Sta, (B8) 150
- Robertsdale, (E9) 600
- Robinson, (C8) 600
- Robinson, (C8) 600
- Rochester, (A7) 5,903
- Rochester Mills, (D6)..... 300
- Rock, (J7)..... 130
- Rockdale, (L10) 1,500
- Rockdale Mills, (D5) 160
- Rockgen, (J6) 300
- Rockhill, (F9) 504
- Rockhill Furnace, (F9)..... 570
- Rockland, (B4) 520
- Rockledge, (L9) 879
- Rockport, (K6) 180
- Rockton, (D5) 100
- Rockwood, (C10) 1,300
- Rockygrove, (B4) 500
- Rodfield, (B8) 250
- Rodney, (C9) 200
- Rodols, (M9) 200
- Rogersville, (A10) 400
- Rohrerstown, (J9) 600
- Rohrsburg, (J5) 200
- Rolfe, (D3)..... 300
- Rome, (J10)..... 222
- Romania, (F5) 200
- Ronco, (B10)..... 1,000
- Ranks, (J9)..... 200
- Rantville, (B2) 100
- Roscoe, (B9)..... 1,450
- Rose Bud, (D6) 1,000
- Rosecrans, (G5) 130
- Rosedale, (D8) 419
- Rosemont, (L9) 1,000
- Rose Point, (A6) 250
- Ruseto, (L6) 200
- Roslyn, (L9) 100
- Rositter, (D6)..... 3,000
- Rosstown, (B7) 100
- Rothsville, (J9) 450
- Rough and Ready, (H7)..... 130
- Roulette, (E2)..... 1,500
- Rouven, (B4) 648
- Rouzeville, (F11) 300
- Rowland, (M4) 300
- Roxbury, (D8)..... 1,000
- Royalton, (H9) 1,033
- Royer, (E8)..... 200
- Royersford, (L9) 3,073
- Ruffs Dale, (B9) 650
- Rupert, (J6)..... 500
- Rupp, (J6)..... 250
- Rural Valley, (C6) 763
- Rush, (J2)..... 120
- Rushland, (M9) 100
- Rushtown, (H6) 110
- Rushville, (J2) 150
- Russell, (C2) 540
- Russellton, (B7) 800
- Russellville, (K10) 110
- Rutland, (H2) 300
- Rutledge, (L10) 523
- Ryde, (F8)..... 100
- Sabbath Rest, (E7) 380
- Sabinville, (F2) 600
- Sabula, (D5)..... 1,300
- Sacramento, (H7) 150
- Sadsburyville, (K10) 300
- Sagersstown, (A3) 712
- Sagersville, (K7) 100
- Safer Harbor, (J10) 250
- Sagamore, (C6) 2,100
- Saginaw, (H9) 200
- Sagon, (H6)..... 300
- St. Augustine, (D7) 760
- St. Benedict, (D7) 900
- St. Bonifacius, (D7) 300
- St. Clair, (B8)..... 5,640
- St. Clair, (J7)..... 6,455
- St. Clairsville, (E9) 101
- St. Davids, (L9) 200
- St. Marys, (D4)..... 6,346
- St. Michael, (D8) 250
- St. Nicholas, (J6) 1,200
- St. Peters, (K9) 500
- St. Petersburg, (B5) 453
- St. Thomas, (F10) 500
- Salem, (H6)..... 120
- Salemville, (E9) 100
- Salfordville, (L8) 170
- Salina, (B7)..... 885
- Salisbury, (C10) 885
- Salix, (D8)..... 200
- Salladasburg, (G4)..... 280
- Salona, (G5)..... 400
- Salter, (E9)..... 100
- Saltillo, (E9)..... 100
- Saltsburg, (C8)..... 1,044
- Salunga, (J9)..... 300
- Sample Run, (C7) 300
- Sanatoga, (K9) 350
- Sand Patch, (D10) 150
- Sandy Creek, (B7) 190
- Sandy Lake, (A4) 639
- Sandy Ridge, (E6) 400
- Sandy Run, (K5) 300
- Sandy Valley, (D5) 150
- Sankertown, (D8) 687
- Sarver, (B7)..... 1,150
- Sassanville, (K8)..... 160
- Satona, (L7)..... 350
- Saxman, (D7) 200
- Saxonburg, (B7) 345
- Saxton, (E9)..... 1,195
- Saybrook, (C3) 100
- Saylorsburg, (L6) 120
- Sayre, (H2)..... 6,426
- Scalp Level, (D9) 1,424
- Scarlets Mill, (K9) 150
- Scenery Hill, (A9) 400
- Schaefersville, (J8) 700
- Scheelburg, (D9) 314
- Schenley Sta, (B7) 150
- Schnocks Sta, (K7) 230
- Schoenly, (J9) 300
- Schoenkill Haven, (J7)..... 4,747
- Schwenksville, (L9) 381
- Sciota, (L6) 300
- Scotch Hill, (C4) 100
- Scotland, (F10) 230
- Scottdale, (B9) 5,456
- Scott Haven, (B8) 800
- Scranton, (K4) 129,807
- Seanor, (D9) 600
- Seairights, (B10) 100
- Seek, (K6)..... 810
- Seelyville, (L3) 650
- Seidersville, (L7) 150
- Seisbortville, (K8) 410
- Seitzland, (H10) 210
- Seligro, (H6)..... 1,473
- Sellersville, (L8)..... 1,572
- Seneca, (B4)..... 250
- Sevenpoints, (H6) 220
- Sevensstars, (G10) 120
- Seven Valleys, (H10) 365
- Seward, (C8)..... 548
- Sewickley, (A7) 4,479
- Shadegap, (F9) 143
- Shadygrove, (F10) 120
- Shaft, (J6)..... 1,600
- Shafton, (B8)..... 350
- Shamokin, (H6) 19,588
- Shamokin Dam, (H6) 500
- Shankrock Sta, (K7) 130
- Shanewille, (K8) 110
- Shanksville, (D9) 710
- Shannondale, (C5) 130
- Sharon, (A5)..... 15,270
- Sharon Hill, (L10) 1,401
- Sharsburg, (B7) 8,153
- Shartsville, (A4) 3,634
- Sharpsville, (J7) 600
- Shavertown, (K4) 100
- Shawmut, (D4) 500
- Shawnee on Delaware, (L5)..... 150
- Sheakleyville, (A4) 126
- Shearers Cross Roads, (B7)..... 200
- Sheffield, (C3)..... 1,900
- Shelcta, (C7)..... 117
- Shenandoah, (J6) 25,774
- Shenango, (A4) 130
- Shepherdstown, (H9) 140
- Shepton, (J6)..... 1,000
- Sheridan, (H8) 260
- Sheridan, (H7)..... 1,000
- Sheridanville, (A8) 3,000
- Sherman, (L2) 250
- Shermans Dale, (G8) 450
- Shermansville, (A3) 150
- Sherrett, (B6) 150
- Sherwin, (B5) 130
- Sheshequin, (J2) 210
- Shickshinny, (J5) 1,917
- Shields, (A7)..... 225
- Shillington, (K8) 1,427
- Shimerville, (K7) 100
- Shingleouse, (E2) 1,598
- Shintown, (F4) 150
- Shippensburg, (F9) 3,457
- Shippensburg, (C4) 378
- Shippingport, (A7) 150
- Shiremanstown, (G9) 545
- Shireoaks, (B9) 100
- Shireysburg, (F8) 256
- Shoemakersville, (J8) 630
- Shoemerville, (K7) 130
- Stone Church, (L6) 100
- Shohola, (M4) 100
- Shrewsbury, (H10) 598
- Shunk, (H3)..... 300
- Sidney, (D6)..... 150
- Siegried, (L7)..... 2,800
- Sigel, (C4)..... 150
- Sigsbee, (A10) 150
- Silva, (J3)..... 150
- Silver Brook, (J7) 1,200
- Silverdale, (J9) 232
- Silverdale, (J9) 200
- Simpson, (K3)..... 2,200
- Sinking Spring, (I8) 600
- Sinamahoning, (E4) 700
- Sitka, (B10)..... 150
- Sivertly, (B4)..... 1,616
- Sixmile Run, (E9) 350
- Skimmers Eddy, (J3) 200
- Skippack, (L9) 360
- Slatedale, (K7) 100
- Slateford, (L6) 100
- Slate Lick, (B6) 200
- Slatersville, (G4) 350
- Slatintown, (K6)..... 4,454
- Sligo, (B5)..... 754
- Slipperyrock, (A5) 870
- Smethport, (E2)..... 1,817
- Smicksburg, (C6)..... 230
- Smithdale, (B9)..... 480
- Smithfield, (B10) 749
- Smithmill, (E7)..... 250
- Smiths Ferry, (A7) 500
- Smithton, (B9)..... 784
- Smock, (H10)..... 1,000
- Smokerun, (E6) 380
- Smyrna, (J10)..... 130
- Snedekerville, (H2) 100
- Snowsboe, (E5) 643
- Snydersburg,

Table listing population figures for various towns in Pennsylvania, Rhode Island, South Carolina, and South Dakota. Columns include town names and their corresponding population counts.

RHODE ISLAND

1915 STATE CENSUS FIGURES

■=Population of Township

Table listing population figures for various towns in Rhode Island. Columns include town names and their corresponding population counts.

SOUTH CAROLINA

Table listing population figures for various towns in South Carolina. Columns include town names and their corresponding population counts.

SOUTH DAKOTA

1915 STATE CENSUS FIGURES

Table listing population figures for various towns in South Dakota. Columns include town names and their corresponding population counts.

Iroquois, (G3).....	530	Lesterville, (G4)....	301	Mobridge, (D2).....	1,551	Orient, (E2).....	180	Rவில்லி, (H2).....	293	Spearfish, (A3).....	921	Tyndall, (G4).....	1,302	Waubay, (G2).....	879
Isabel, (C3).....	162	Letcher, (F4).....	411	Monroe, (G4).....	170	Ortley, (E3).....	162	Rockham, (F3).....	283	Spencer, (G4).....	572	Utica, (G5).....	133	Webster, (G2).....	1,640
Java, (E2).....	410	Lily, (G2).....	149	Montrose, (G4).....	552	Parker, (G4).....	1,324	Roscoe, (E2).....	320	Springfield, (F5).....	695	Valley Springs, (H4).....	372	Wentworth, (H4).....	350
Jefferson, (H6).....	501	Little Eagle, (D2).....	100	Morristown, (C2).....	127	Parkston, (G4).....	1,132	Rosbud, (H4).....	110	Stickney, (F4).....	312	Verdon, (F2).....	89	Westington, (F3).....	526
Kadoda, (C4).....	254	Lowry, (E2).....	90	Mound City, (E2).....	288	Peever, (H2).....	400	Roswell, (G3).....	150	Stockholm, (H2).....	200	Vermilion, (H5).....	2,376	Wessington Springs, (F3).....	1,142
Kennebec, (F4).....	202	McIntosh, (C2).....	428	Mount Vernon, (F4).....	541	Phillip, (C3).....	404	Roubaux, (A3).....	100	Strandburg, (H2).....	117	Verdon, (F2).....	372	Wetonka, (F2).....	300
Keystone, (A4).....	320	McLaughlin, D2).....	125	Murdo, (D3).....	352	Piedmont, (A3).....	100	Rowna, (H4).....	100	Stratford, (F2).....	400	Vernon, (F2).....	372	White, (H3).....	581
Kimball, (F4).....	787	Madison, (G4).....	3,949	Naples, (G3).....	130	Pierpont, (G2).....	320	Rutland, (H3).....	225	Sturgis, (A3).....	1,029	Viborg, (G4).....	484	White Lake, (F4).....	504
Kranzburg, (H3).....	100	Manchester, (G3).....	140	Newark, (G2).....	192	PIERRE, (D3).....	3,010	Saint Lawrence, (F3).....	253	Summit, (H2).....	536	Vienna, (G3).....	441	White Rock, (H2).....	384
Lake Andes, (G3).....	566	Mansfield, (F2).....	250	Newell, (A3).....	272	Plankinton, (F4).....	916	Saint Onge, (A3).....	250	Tabor, (G5).....	546	Vilas, (G3).....	177	White Wood, (A3).....	295
Lake Norden, (G3).....	268	Marion, (G4).....	614	New Underwood, (B3).....	119	Platte, (F4).....	939	Salem, (G4).....	1,132	Tan, (H4).....	177	Virgil, (F3).....	220	Willow Lake, (G3).....	398
Lake Preston, (G3).....	862	Mellette, (F2).....	300	Nisland, (A3).....	128	Pollack, (D2).....	238	Scenic, (B4).....	130	Terraville, (A3).....	491	Volga, (H3).....	600	Wilmot, (H2).....	520
Lamro, (E4).....	350	Meadow, (B2).....	100	Northville, (F2).....	190	Presho, (D4).....	355	Scotland, (G4).....	1,249	Terry, (A3).....	600	Volin, (F5).....	336	Winfred, (F4).....	501
Lane, (F3).....	278	Meckling, (G5).....	190	Nunda, (G3).....	250	Pukwana, (E4).....	182	Selby, (D2).....	646	Timber Lake, (C2).....	238	Wagner, (F4).....	403	Winner, (E4).....	923
Laogford, (G2).....	426	Mellette, (F2).....	453	Oacoma, (E4).....	760	Quinn, (H3).....	250	Seneca, (E2).....	182	Tolstoy, (E2).....	148	Wakonda, (G4).....	128	Witten, (E4).....	400
Lead, (A3).....	8,128	Menno, (G4).....	760	Oelrichs, (A4).....	207	Rapids City, (A3).....	4,268	Sinai, (H3).....	145	Trent, (H4).....	274	Wallace, (G2).....	218	Wolsey, (F3).....	439
Lebanon, (E2).....	420	Midland, (C3).....	207	Oldham, (G3).....	362	Raymond, (G3).....	241	Sioux Falls, (H4).....	20,929	Tripp, (G4).....	903	Ward, (H3).....	102	Woonsocket, (F3).....	1,201
Lebeau, (D2).....	210	Milbank, (H2).....	1,940	Olivet, (G4).....	163	Redfield, (F3).....	3,122	Sisseton, (G2).....	1,386	Tulare, (F3).....	250	Warner, (F2).....	250	Worthing, (H4).....	191
Lennox, (H2).....	943	Miller, (E3).....	956	Onaka, (E2).....	120	Ree Heights, (E3).....	250	Southshore, (G2).....	331	Turton, (F2).....	263	Wasta, (B2).....	250	Yale, (G3).....	250
Lennox, (H4).....	901	Missionhill, (G5).....	166	Onida, (D3).....	251	Reliance, (E4).....	350	So. Sioux Falls, (H4).....	171	Twinbrooks, (H2).....	177	Watertown, (G3).....	8,313	Yankton, (G5).....	4,771
Leola, (F2).....	501	Mitchell, (F4).....	7,785												

TENNESSEE

Adams, (G5).....	542	Bullsgap, (P6).....	130	Dayton, (L8).....	1,991	Gibson, (D7).....	250	Kingsport, (Q5).....	350	Mulberry, (J8).....	210	Richard City, (K8).....	324	Temperance Hall, (K6).....	180
Adamsville, (E8).....	700	Bumpus Mills, (F5).....	130	Decatur, (M7).....	165	Glass, (C6).....	250	Kingston, (N7).....	824	Mulberry Gap, (P5).....	200	Rickman, (L6).....	100	Thomastown, (A8).....	391
Aetna, (G7).....	150	Bunker Hill, (H8).....	120	Decaturville, (E7).....	300	Gleason, (D6).....	388	Kingston Spgs, (G6).....	130	Munford, (B8).....	329	Ridgedale, (L8).....	1,500	Thompson Station, (H7).....	200
Afton, (Q6).....	120	Buonty, (H8).....	500	Decherd, (J8).....	1,022	Glen Cliff, (H6).....	150	Knoxville, (N7).....	36,346	Murfreesboro, (J7).....	4,679	Ridgely, (B6).....	519	Tiptonville, (C6).....	843
Agee, (N6).....	100	Burns, (G6).....	230	Deer Lodge, (M6).....	150	Glendale, (G7).....	100	Lafayette, (K5).....	678	Nance, (J7).....	110	Ripley, (B7).....	2,011	Toms Creek, (F7).....	100
Alamo, (C7).....	340	Burwood, (H7).....	150	Dellrose, (H8).....	150	Glenmary, (M6).....	500	Lafollette, (N6).....	2,816	NASHVILLE, (H6).....	110,364	Rives, (C6).....	468	Toone, (D8).....	245
Alanhans, (F5).....	100	Butler, (S6).....	499	Del Rio, (P7).....	100	Glenravel, (H5).....	100	Lagrange, (C8).....	308	National Soldiers Home, (R6).....	100	Roan Mountain, (R6).....	300	Townsend, (O7).....	800
Alexandria, (K6).....	800	Byrdstown, (L5).....	120	Denmark, (D7).....	300	Glimp, (B7).....	100	Laguado, (J6).....	100	Neva, (S6).....	120	Robbins, (M6).....	400	Toy, (M8).....	100
Algond, (L6).....	180	Cades, (D7).....	161	Deposit, (N6).....	100	Godwin, (G7).....	100	Laing, (M6).....	100	Newbern, (C6).....	1,602	Rock Island, (K7).....	100	Tracy City, (K8).....	3,100
Allardt, (M6).....	330	Cainsville, (J7).....	200	Detroit, (B7).....	100	Goldust, (B7).....	200	Laurel, (M6).....	100	Newcomb, (N5).....	500	Rockwood, (M7).....	3,660	Trade, (S6).....	130
Allens Creek, (E8).....	490	Calhoun, (M8).....	220	Dickson, (G6).....	1,850	Goodlettsville, (H6).....	1,000	Laurelhill, (K6).....	210	New Market, (P6).....	700	Roellen, (C6).....	150	Trenton, (C7).....	2,402
Allison, (H7).....	100	Camden, (E6).....	692	Difficult, (K6).....	280	Goodrich, (F7).....	360	La Vergne, (H6).....	200	New Middleton, (K6).....	290	Rogersville, (P6).....	1,242	Trentville, (O6).....	150
Almy, (M6).....	140	Campbell, (G8).....	100	Dixon Springs, (J6).....	250	Gordonsburg, (G7).....	422	Law, (D7).....	100	New Prospect, (O6).....	120	Rome, (F6).....	300	Trezevant, (D6).....	500
Altamont, (K8).....	240	Campbellville, (G8).....	150	Dock, (P6).....	100	Gordonsville, (K7).....	245	Lawrenceburg, (G8).....	1,687	Newport, (P7).....	2,003	Rooke, (K8).....	200	Trimble, (C6).....	556
Alto, (K8).....	150	Caneybranch, (Q6).....	150	Dorton, (M7).....	100	Graham, (F7).....	100	Lebanon, (J6).....	3,392	New Providence, (G5).....	820	Rossville, (C8).....	142	Troy, (C6).....	529
Autonpark, (L8).....	400	Capleville, (B8).....	150	Double Bridges, (B7).....	100	Grand Junction, (C8).....	491	Lebanon, (J6).....	3,392	New River, (M6).....	300	Rugby, (M6).....	250	Tulahoma, (J8).....	3,049
Autrans, (N5).....	150	Cardiff, (M7).....	120	Double Springs, (K6).....	140	Graville, (K6).....	230	Lenox, (C6).....	500	New Station, (G6).....	150	Ruskin, (F6).....	200	Tuscumulo, (O6).....	150
Apison, (L8).....	120	Carlisle, (F6).....	150	Dover, (F6).....	140	Gravestone, (O6).....	100	Lewisburg, (H8).....	1,830	New Tazewell, (O6).....	150	Rutherford, (D6).....	766	Union City, (C6).....	4,389
Arcadia, (R5).....	200	Carlock, (M8).....	100	Dover, (F6).....	140	Gravestone, (O6).....	100	Lewistown, (E7).....	1,497	Nixa, (M7).....	150	Rutledge, (P6).....	500	Unionville, (H7).....	220
Arlington, (B8).....	477	Carters Creek, (H7).....	150	Dowelltown, (K6).....	240	Greco Brier, (H6).....	522	Liberty, (K6).....	330	Nolensville, (H7).....	150	Saint Clair, (P6).....	360	Uptonville, (D8).....	100
Arthur, (O5).....	200	Cartersburg, (K6).....	904	Doyles, (R7).....	708	Greeneville, (Q6).....	1,920	Limestone, (O6).....	200	Norma, (N6).....	300	Saint Elmo, (B8).....	2,426	Vandever, (L7).....	100
Asbury, (O7).....	100	Caryville, (N6).....	250	Dresden, (D6).....	708	Greeneville, (Q6).....	1,920	Limestone Cove, (K6).....	200	Norma, (N6).....	300	Saint Joseph, (G8).....	250	Vaughtsville, (S6).....	100
Ashtand City, (G6).....	641	Castalian Springs, (J6).....	150	Drokes, (R6).....	150	Gruetli, (K8).....	140	Linton, (F7).....	330	Nolensville, (H7).....	150	Saint Joseph, (G8).....	250	Verona, (H7).....	110
Asport, (B7).....	600	Catlettsburg, (O7).....	100	Ducktown, (N8).....	1,500	Guelph, (K8).....	200	Livingston, (L6).....	1,421	Nolensville, (H7).....	150	Saint Joseph, (G8).....	250	Victoria, (K8).....	300
Aspen Hill, (C8).....	200	Cedar Hill, (H5).....	500	Dunlap, (L8).....	1,166	Guelph, (K8).....	200	Livingston, (L6).....	1,421	Nolensville, (H7).....	150	Saint Joseph, (G8).....	250	Viola, (C8).....	120
Atchens, (M8).....	2,264	Celina, (K5).....	380	Durhamville, (B7).....	150	Guid, (K8).....	500	Loveville, (F7).....	180	Norma, (N6).....	300	Samburg, (C6).....	111	Vonore, (N7).....	200
Atoka, (B8).....	250	Centerville, (F7).....	1,097	Dyer, (D6).....	1,166	Hahersham, (N6).....	130	Longview, (J7).....	180	Norma, (N6).....	300	Samburg, (C6).....	111	Waldensia, (M7).....	500
Atpondey, (L7).....	400	Chapel Hill, (H7).....	170	Dyersburg, (C6).....	4,149	Hales Point, (B7).....	200	Lonsdale, (E7).....	2,391	Orchard Knob, (L8).....	1,000	Santa Fe, (G7).....	270	Walnut Grove, (E8).....	500
Atwood, (D7).....	140	Charleston, (M8).....	400	Eads, (P3).....	81	Halls, (C7).....	882	Lookout Mountain, (L9).....	631	Orchard Knob, (L8).....	1,000	Santa Fe, (G7).....	270	Walton, (K8).....	100
Auburn, (J7).....	200	Charlotte, (G6).....	236	Eagleville, (H7).....	380	Halls, (C7).....	882	Lookout Mountain, (L9).....	631	Orchard Knob, (L8).....	1,000	Santa Fe, (G7).....	270	Walton, (K8).....	100
Aulon, (B8).....	140	Chaska, (N5).....	100	East Chattanooga, (L8).....	44,604	Hampden, (E8).....	150	Loretto, (G8).....	600	Orchard Knob, (L8).....	1,000	Santa Fe, (G7).....	270	Walton, (K8).....	100
Avondale, (L8).....	1,000	Chattanooga, (L8).....	44,604	Eastlake, (L8).....	250	Harriman, (N7).....	3,061	Lovesdale, (Q5).....	200	Orchard Knob, (L8).....	1,000	Santa Fe, (G7).....	270	Walton, (K8).....	100
Awalt, (J8).....	180	Cherry, (B7).....	100	Eastland, (L7).....	334	Harrison, (L8).....	200	Lovesdale, (Q5).....	200	Orchard Knob, (L8).....	1,000	Santa Fe, (G7).....	270	Walton, (K8).....	100
Balyleton, (Q6).....	250	Cherry Valley, (J6).....	100	Eaton, (C7).....	130	Hartselle, (J6).....	1,000	Luce, (B8).....	200	Orchard Knob, (L8).....	1,000	Santa Fe, (G7).....	270	Walton, (K8).....	100
Barkville, (F7).....	170	Chesterfield, (E7).....	100	Ebenezer, (N7).....	100	Haysville, (J5).....	100	Lynchburg, (J8).....	408	Orchard Knob, (L8).....	1,000	Santa Fe, (G7).....	270	Walton, (K8).....	100
Balncamp, (N7).....	200	Chestnut Hill, (P7).....	100	Echo, (J6).....	100	Haysville, (J5).....	100	Lynchburg, (J8).....	408	Orchard Knob, (L8).....	1,000	Santa Fe, (G7).....	270	Walton, (K8).....	100
Barley, (A8).....	150	Chestnut Mound, (K6).....	230	Eidowold, (H6).....	150	Hebbertsburg, (M6).....	100	Lynchburg, (J8).....	408	Orchard Knob, (L8).....	1,000	Santa Fe, (G7).....	270	Walton, (K8).....	100
Barnevile, (G8).....	150	Chic, (B7).....	100	Elizabethton, (R6).....	2,478	Heiskell, (N6).....	300	Lynchburg, (J8).....	408	Orchard Knob, (L8).....	1,000	Santa Fe, (G7).....	270	Walton, (K8).....	100
Barr, (B7).....	200	Christiana, (J7).....	100	Elkton, (H8).....	179	Henderson, (D8).....	1,087	Lynchburg, (J8).....	408	Orchard Knob, (L8).....	1,000	Santa Fe, (G7).....	270	Walton, (K8).....	100
Bartlett, (B8).....	200	Clairfield, (O5).....	200	Elk Valley, (N6).....	200	Hendersons Cross Roads, (J6).....	100	Lynchburg, (J8).....	408	Orchard Knob, (L8).....	1,000	Santa Fe, (G7).....	270	Walton, (K8).....	100
Baxter, (K6).....	200	Clarksburg, (E7).....	230	Elk Valley, (N6).....	200	Hendersons Cross Roads, (J6).....	100	Lynchburg, (J8).....	408	Orchard Knob, (L8).....	1,000	Santa Fe, (G7).....	270	Walton, (K8).....	100
Beans Creek, (J8).....	150	Clarksville, (G5).....	8,548	Elora, (J8).....	58	Hendersonsville, (H6).....	220	Lynchburg, (J8).....	408	Orchard Knob, (L8).....	1,000	S			

Table listing cities and towns in Texas with their corresponding population counts. The list is organized alphabetically by city name, with population figures provided for each entry. The table spans multiple columns and rows, covering a wide range of locations from Belcherville to Crete.

INDEX OF THE UNITED STATES

Table listing population data for various locations in Texas, Utah, and Vermont. Columns include location names and their corresponding population counts.

UTAH

Table listing population data for various locations in Utah. Columns include location names and their corresponding population counts.

VERMONT

■ = POPULATION OF TOWNSHIP

Table listing population data for various locations in Vermont. Columns include location names and their corresponding population counts.

Table listing locations in Vermont and Virginia with their corresponding page numbers. Includes entries like Evansville, Fairfax, Fairfield, etc., and locations like Abbie, Abiogdon, Accomac, etc.

VIRGINIA

Table listing locations in Virginia with their corresponding page numbers. Includes entries like Abbie, Abiogdon, Accomac, etc., and locations like Abbie, Abiogdon, Accomac, etc.

Portsmouth, (L6) 33,190	Rectortown, (H2)... 110	Ruckersville, (G3) 200	Shendun, (F3)... 456	Stephens City, (G1)... 483	Tappahannock, (K4) 478	Vioe, (L6)... 100	Westpoint, (K4)... 1,39
Potomac, (J2)... 559	Red Hill, (F4)... 100	Rural Retreat, (A6)... 1,000	Shiloh, (J3)... 180	Stevensville, (K4)... 100	Tazewell, (D1)... 1,230	Vinton, (D5)... 1,928	Whaleyville, (K6)... 40
Pound, (B1)... 200	Reed Island, (B6)... 100	Rushmere, (K5)... 150	Shipman, (F4)... 180	Stoney Creek, (J6)... 200	Temperanceville, (M4)... 200	Virginia Beach, (M6)... 320	White Marsh, (K5)... 30
Pounding Mill, (D1)... 100	Reedville, (L4)... 900	Rustberg, (E5)... 300	Simmons, (C5)... 100	Stony Creek, (J6)... 200	Tenno, (C1)... 100	Virginia City, (C2) 250	White Post, (G1)... 30
Powhatan, (H4)... 250	Reids Ferry, (K6)... 100	Rye Cove, (B2)... 100	Simplicity, (G5)... 500	Stop, (H6)... 100	Theological Seminary, (J2)... 200	Wachapreague, (M4)... 485	Whitell, (D6)... 35
Preacher, (B2)... 300	Reice, (J2)... 300	Saint Paul, (C2)... 500	Sinai, (F6)... 500	Strasburg, (G2)... 762	The Plains, (H2)... 140	Wades, (E5)... 120	Whitewater, (K5)... 10
Prince, (K4)... 100	Remington, (H2)... 251	Salem, (C5)... 3,849	Singer Glen, (F2)... 110	Strasburg Junction, (G2)... 150	Timber Ridge, (E4) 160	Wadesville, (G1)... 150	Widewater, (J2)... 7
Prince George, (J5) 100	Renoville, (L6)... 200	Saltville, (D2)... 1,628	Skippers, (J6)... 120	Streats, (K4)... 100	Timberville, (F2)... 240	Wakfield, (J6)... 570	Willcox Wharf, (J5) 13
Princess Anne, (L6) 300	Richlands, (D1)... 743	Saluda, (K4)... 250	Smithfield, (K6)... 1,278	Streats, (C6)... 388	Toano, (K5)... 1,200	Wallace, (G3)... 100	Williamsburg, (K5) 2,71
Prospect, (F5)... 160	RICHMOND, (J4)... 127,628	Samos, (K4)... 100	Snowville, (B5)... 300	Suffolk, (K6)... 7,008	Toms Brook, (G2) 400	Wallace, (C2)... 250	Willis, (C6)... 10
Pughs, (L5)... 200	Ridgeway, (D6)... 393	Sangerville, (E3)... 150	Somerset, (G3)... 100	Summerduck, (H3)... 100	Toms Creek, (C2)... 700	Warm Springs, (D4) 500	Willis Wharf, (M4) 20
Pulaski, (B5)... 4,807	Riner, (C5)... 250	Saxis, (M4)... 700	Somerton, (K6)... 250	Sunbeam, (J6)... 100	Townsend, (L5)... 200	Winchester, (G1)... 5,826	Windsor, (K6)... 32
Pungoteague, (M4) 400	Ringsold, (E6)... 120	School, (J4)... 300	South Hill, (G6)... 3,516	Surry, (K5)... 200	Warrenton, (H2)... 1,427	Wintercock, (H5)... 70	Wisepock, (H5)... 80
Purcellville, (H1)... 388	Riverton, (G2)... 700	Schoolfield, (E6)... 3,500	Spencer, (D6)... 150	Susan, (L5)... 300	Warsaw, (K4)... 200	Woodbridge, (J2)... 11	Woodstock, (F2)... 1,31
Quantic, (J2)... 120	Riverdale, (F4)... 200	Scottsburg, (F6)... 360	Sperryville, (G2)... 400	Sussex, (J6)... 100	Washington, (G2)... 235	Woodstock, (F2)... 1,31	Woodville, (G2)... 10
Quicksburg, (F2)... 100	Riverview, (G4)... 700	Scottsville, (G4)... 283	Spotsylvania, (H3) 100	Sutherland, (E6)... 100	Waterford, (H1)... 331	Woodville, (G2)... 10	Wren, (F5)... 15
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Ramble, (F6)... 350	Roaringfork, (B1) 100	Seaview, (M5)... 100	Spring Valley, (A6) 100	Sweet Briar, (E4)... 100	Water View, (K4)... 100	Wytheville, (F6)... 15	Yorktown, (K5)... 10
Ransons, (F4)... 300	Rockbridge Baths, (E4)... 100	Seven Mile Ford, (D2)... 110	Springwood, (D4)... 100	Swetnam, (J2)... 100	Waverly, (J5)... 1,064	Wytheville, (F6)... 15	Zuni, (K6)... 20
Raphine, (E4)... 220	Rockingham, (F3) 100	Severn, (L5)... 200	Stafford, (J3)... 100	Swords Creek, (D1) 200	Waynesboro, (E3)... 1,389	Wytheville, (F6)... 15	
Rapidan, (G3)... 300	Rocky Mount, (D5) 967	Sevalls Point, (L6) 300	Stanardsville, (G3) 350	Sylvanus, (B6)... 100	Weems, (L4)... 200	Wytheville, (F6)... 15	
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WASHINGTON

Aberdeen, (C4)... 13,660	Camas, (F7)... 1,125	Des Moines, (F4)... 350	Granville, (L6)... 320	Leavenworth, (J3) 1,551	Northbend, (G3)... 299	Raymond, (C5)... 2,450	Stevenson, (G7)... 387
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Adna, (D5)... 150	Cashmere, (J4)... 625	Downs, (O4)... 125	Hamilton, (G1)... 405	Lind, (N5)... 831	Oak Harbor, (E2)... 200	Regents Park, (E4)... 300	Sunnyside, (L6)... 1,375
Albion, (Q5)... 100	Castlerock, (E6)... 698	Dryad, (D5)... 300	Hamford, (L5)... 300	Little Falls, (D6)... 630	Oakville, (D5)... 465	Renton, (F4)... 2,740	Sunset, (P4)... 200
Alder, (E5)... 300	Cathlamet, (D6)... 352	Dungeness, (D2)... 150	Harper, (E4)... 275	Littlerock, (E5)... 300	Ocoosa, (B5)... 127	Republic, (N1)... 999	Suquamish, (E3)... 100
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Almota, (Q5)... 100	Centerville, (J7)... 200	Eagle Gorge, (G4)... 100	Hartford, (F2)... 250	Longbeach, (B6)... 200	Okanagan, (L2)... 611	Ridgefield, (E7)... 150	Taholah, (B4)... 130
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Alhambra, (C6)... 100	Charleston, (E3)... 1,062	Easton, (H4)... 100	Harvey, (Q2)... 300	Loon Lake, (P2)... 190	OLYMPIA, (D4) 6,996	Riparian, (O5)... 100	Taylor, (G4)... 500
Alhambra, (C6)... 100	Chattaroy, (Q5)... 1,062	East Seattle, (F3) 300	Hatton, (N5)... 161	Loon Lake, (P2)... 190	Orchards, (E7)... 441	Ritzville, (Q4)... 1,859	Tekoa, (Q4)... 1,694
Alhambra, (C6)... 100	Chattaroy, (Q5)... 1,062	Eastsound, (E1)... 100	Hazel, (G2)... 170	Lowell, (F3)... 650	Opportunity, (Q3)... 450	Riverside, (L1)... 425	Tenino, (E5)... 1,038
Alhambra, (C6)... 100	Chattaroy, (Q5)... 1,062	Eatonville, (E5)... 754	Hillary, (Q3)... 3,276	Lyle, (H7)... 100	Orville, (M1)... 495	Robe, (G2)... 100	Tenino, (E5)... 1,038
Alhambra, (C6)... 100	Chattaroy, (Q5)... 1,062	Edison, (F1)... 300	Hockinson, (F7)... 100	Lyman, (F7)... 441	Orville, (M1)... 495	Robe, (G2)... 100	Tenino, (E5)... 1,038
Alhambra, (C6)... 100	Chattaroy, (Q5)... 1,062	Edmonds, (F3)... 1,114	Hoodport, (D4)... 65	Lyman, (F7)... 441	Orville, (M1)... 495	Robe, (G2)... 100	Tenino, (E5)... 1,038
Alhambra, (C6)... 100	Chattaroy, (Q5)... 1,062	Edwall, (F4)... 300	Hooper, (O5)... 100	Lyman, (F7)... 441	Orville, (M1)... 495	Robe, (G2)... 100	Tenino, (E5)... 1,038
Alhambra, (C6)... 100	Chattaroy, (Q5)... 1,062	Elbe, (F5)... 130	Houqua, (C4)... 8,171	Lyman, (F7)... 441	Orville, (M1)... 495	Robe, (G2)... 100	Tenino, (E5)... 1,038
Alhambra, (C6)... 100	Chattaroy, (Q5)... 1,062	Elberton, (Q5)... 330	Hot Springs, (G4)... 45	Lyman, (F7)... 441	Orville, (M1)... 495	Robe, (G2)... 100	Tenino, (E5)... 1,038
Alhambra, (C6)... 100	Chattaroy, (Q5)... 1,062	Elbe, (F5)... 130	Houqua, (C4)... 8,171	Lyman, (F7)... 441	Orville, (M1)... 495	Robe, (G2)... 100	Tenino, (E5)... 1,038
Alhambra, (C6)... 100	Chattaroy, (Q5)... 1,062	Elberton, (Q5)... 330	Hot Springs, (G4)... 45	Lyman, (F7)... 441	Orville, (M1)... 495	Robe, (G2)... 100	Tenino, (E5)... 1,038
Alhambra, (C6)... 100	Chattaroy, (Q5)... 1,062	Elbe, (F5)... 130	Houqua, (C4)... 8,171	Lyman, (F7)... 441	Orville, (M1)... 495	Robe, (G2)... 100	Tenino, (E5)... 1,038
Alhambra, (C6)... 100	Chattaroy, (Q5)... 1,062	Elberton, (Q5)... 330	Hot Springs, (G4)... 45	Lyman, (F7)... 441	Orville, (M1)... 495	Robe, (G2)... 100	Tenino, (E5)... 1,038
Alhambra, (C6)... 100	Chattaroy, (Q5)... 1,062	Elbe, (F5)... 130	Houqua, (C4)... 8,171	Lyman, (F7)... 441	Orville, (M1)... 495	Robe, (G2)... 100	Tenino, (E5)... 1,038
Alhambra, (C6)... 100	Chattaroy, (Q5)... 1,062	Elberton, (Q5)... 330	Hot Springs, (G4)... 45	Lyman, (F7)... 441	Orville, (M1)... 495	Robe, (G2)... 100	Tenino, (E5)... 1,038
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Table listing locations and their corresponding page numbers, organized in columns. Includes entries like Gerrardstown, Giltto, Giles, Gilkerson, etc.

WISCONSIN

Table listing locations in Wisconsin and their corresponding page numbers, organized in columns. Includes entries like Abbotsford, Ablesman, Abrams, Adams, etc.

INDEX OF THE UNITED STATES

Table listing various locations and their corresponding census figures, organized in multiple columns. Includes entries like 'John Creek (K8) 425', 'Lack (B3) 380', 'Minocqua (H3) 470', etc.

WYOMING
1915 STATE CENSUS FIGURES

Table listing Wyoming locations and their 1915 state census figures. Includes entries like 'Acme (E2) 150', 'Albion (B4) 673', 'Aladdin (H2) 100', etc.





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